

Entrusted project of the Ministry of  
Health, Labour and Welfare, 2016

# Training Manual on Safety and Health for Unskilled Workers

>>> Commerce <<<



Educate with good care!



Japan Association of Safety and Health Consultants



## Introduction

Occupational accidents occurrence among unskilled workers is more frequent than among skilled workers since they are not accustomed in process, and they are not sensitive to danger yet. Therefore, training of safety and health takes important roll when a company employs new workers or when they change operations. However, especially in middle-sized or small-sized workplaces, providing perfect know-how of safety and health is sometimes difficult.

This manual advises commercial workplaces on safety and health training when they educate workers whom newly employed or the ones with insufficient work experience (unskilled workers).

Although this manual focuses on retail operation, the variety of services is diverse, and we strived to design the manual contents so it can also be applied to different services as well. In addition, this manual contains illustrations to make it easier to understand for those who do not have enough experience in safety and health at work.

Lastly, this manual was compiled with the help of several companies and their employees who provided us with many valuable materials regarding safety and health at work. We sincerely express our gratitude to you for your cooperation. We believe many workplaces could utilize this manual to improve safety and health training to protect "unskilled workers" from occupational accidents in the field of commerce.

February, 2017

Compilation Committee of Training Manual on  
Safety and Health for Unskilled Workers

Tomoho Shintaku, Chair





# Contents

## Part 1 Safety and Health Training for Unskilled Workers (for managers of safety and health)

I	Need for Safety and Health Training for Unskilled Workers	
1	Majority of occupational accidents that occur in commerce .....	2
2	Occupational accidents occur most among unskilled workers .....	3
3	Characteristics of occupational accidents in commerce .....	6
4	Prevent occupational accidents through safety and health training .....	8
II	Steps of the Safety and Health Training for Unskilled Workers	
1	Understanding the various types of dangers at workplace .....	18
2	"Might" questions can notify workers on the occurrence of danger .....	33
3	Teaching fundamentals for accident prevention (Part 1) .....	35
	~ Let workers understand various rules and activities for safety and health	
4	Teaching the fundamentals for accident prevention (Part 2) .....	51
	~ Carry out safe operations to improve workplace safety	
5	Teaching the fundamentals for accident prevention (Part 3) .....	60
	~ Teach the right actions to take during occurrence of accidents or abnormal situations	
III	References for Safe Operations	
1	Safe operation examples .....	62
2	Customer service basics .....	69
3	Roll box pallet (container cart) safe operations .....	74
IV	Acquiring information related to work safety and health .....	75

## Part 2 Safety and Health Training for Unskilled Workers (for lecturers)

Point 1	There are various dangers at workplace! .....	78
Point 2	Know a danger by questioning "might" risks! .....	81
Point 3	Safe operation starts with the proper attire! .....	83
Point 4	Follow the assigned operating procedures! .....	85
Point 5	Improve safety through implementing 4S and 5S! .....	86
Point 6	If all employees maintain safety in the operations, the entire workplace will be safer! .....	87
Point 7	In case of accidents or abnormal situations! .....	98

## How to use this manual

This manual compiles important advices for accident prevention of unskilled workers, and the tips are necessary for companies and employees to perform in commerce field.

Responsible persons and lecturers can utilize this manual as follows.

### **Part 1 Safety and Health Training for Unskilled Workers (for managers of safety and health)**

- (1) This part explains important points to effectively conduct the safety and health training for unskilled workers.
- (2) This part explains what the unskilled workers should know and acquire through the safety and health training.
- (3) In the actual training, please use "Part 2 Safety and Health Training for Unskilled Workers (for lecturers)".

### **Part 2 Safety and Health Training for Unskilled Workers (for lecturers)**

- (1) This part consists of explanation for lecturers on each content of the Power Point materials that lecturers can download and use in the training. Please use as additional reference and apply to the training.
- (2) In middle-sized and small-sized workplaces, sometimes it is difficult to take much time for safety and health training, and they give training to workers as short as in 1 to 2 hours. The Power Point materials are compiled well so that lecturers can use it also in this short hours.

(Note) You can download the Power Point materials from the website of the Ministry of Health, Labour and Welfare.

Part 1 Safety and Health Training  
for Unskilled Workers  
(for managers of safety and health)

# I Need for Safety and Health Training for Unskilled Workers

## 1 Majority of occupational accidents that occur in commerce

<Occupational accidents in the third industry>

- ◆ Occupational accidents in the third industry account for 45%, which is almost half of all accidents.
- ◆ Accidents in commerce account for 33% of the whole industry, and this shows accident prevention is especially necessary in commerce.

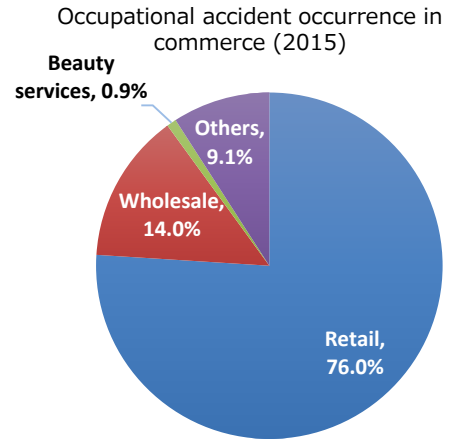
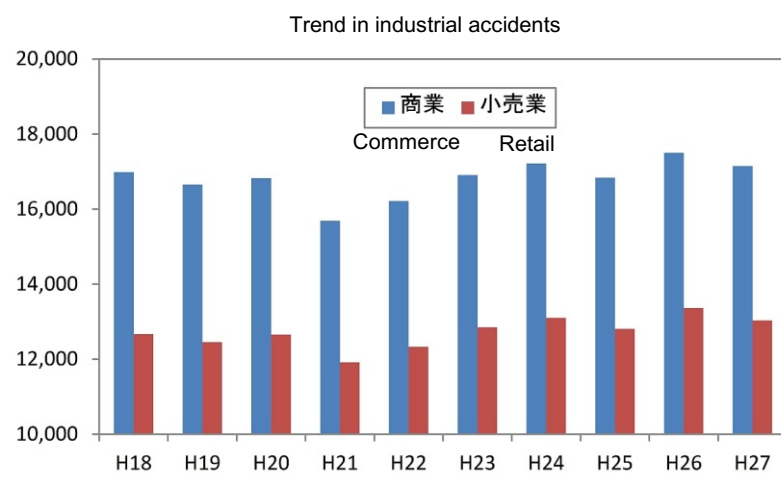
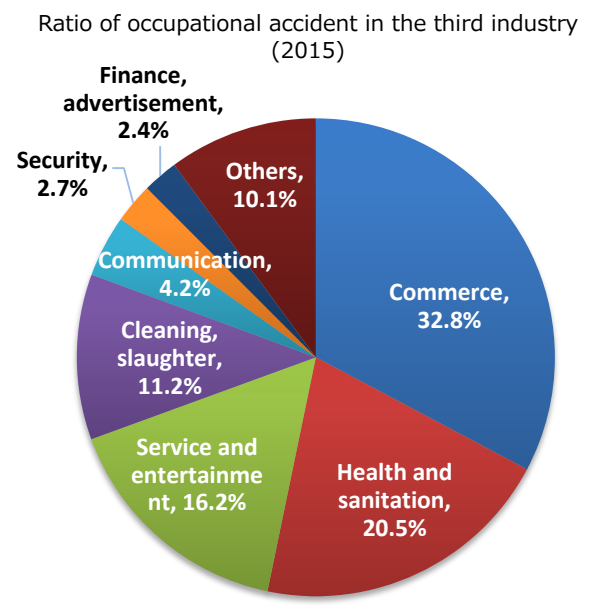
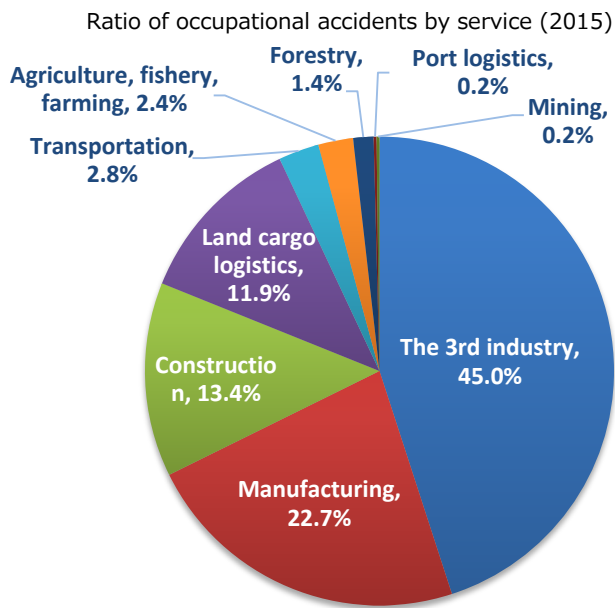
### (1) Accident prevention in retail and wholesale is an urgent issue

When you look at occupational accidents that occurred in 2015 by industry, the third industry accounts for nearly half of all accidents, that is why preventive measures against occupational accidents in the third industry are strongly encouraged.

The third industry consists of many services, and the accidents in commerce are the most frequent.

In commerce, retail accounts for 76%, which is the most frequent, and then wholesale for 14%.

Also, accident occurrence is slightly increasing in commerce and in retail for the past 10 years.



Reference: the Ministry of Health, Labour and Welfare (2015)

## 2 Occupational accidents occur most among unskilled workers

<Occupational accidents of unskilled workers in commerce>

- ◆ Dead or injured accidents (with more than four day-offs) are increasing in commerce among workers with less than three years of experience.
- ◆ Workers with less than three years of experience account for 40%.

### (1) Occupational accidents of workers without enough experience (unskilled workers) are increasing

Many part-time workers and working students work in commerce, and then accidents of the workers without enough experience are increasing.

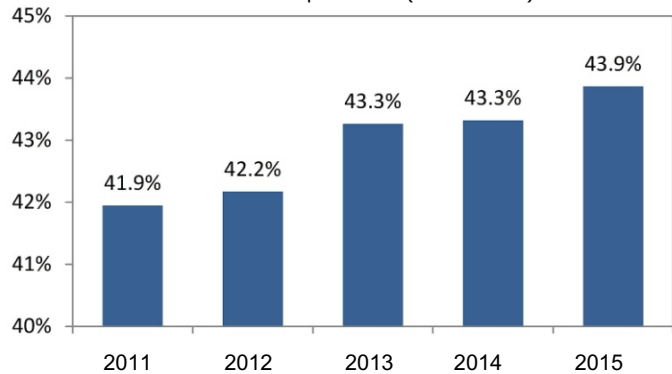
The ratio of accidents of workers with less than three years of experience keep increasing and unfortunately may continue.

By the number of years of experience, workers with less than one-year experience account for 24%, and workers with less than three years experience account for 44% of all accidents in commerce in 2015.

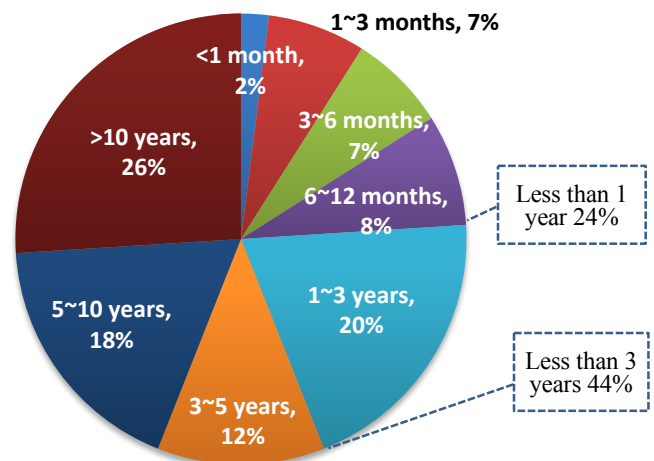
When you look at the ratio of workers with less than three years of experience, you will see that it is higher both in commerce and retail than all industries.

Accident prevention is necessary for unskilled workers who don't have much experience after they join their workplaces.

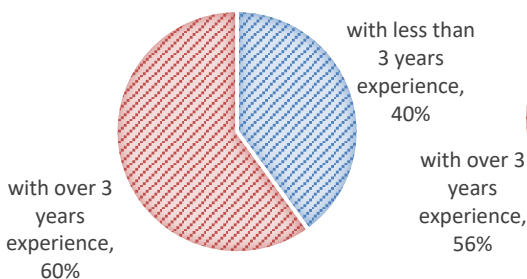
Ratio of accidents of workers with less than three years of experience (commerce)



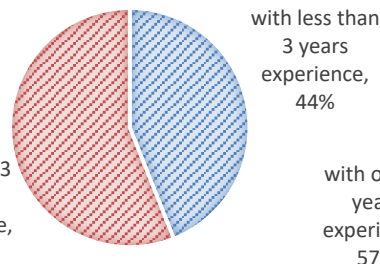
Dead or injured accidents by years of experience (2015, commerce)



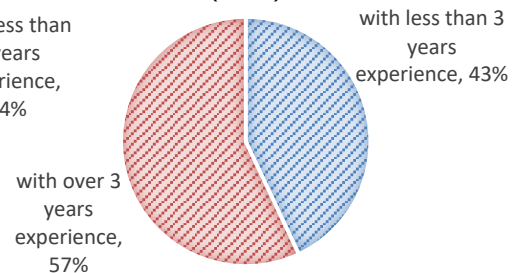
Ratio by years of experience (all industries)



Ratio by years of experience (commerce)



Ratio by years of experience (retail)



Reference: Ministry of Health, Labour and Welfare (2015)

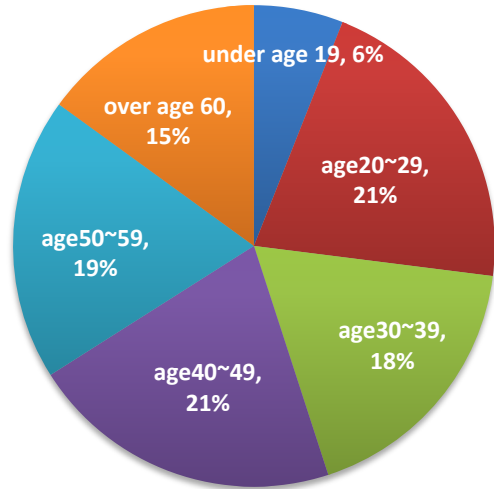
## (2) Detail of occupational accidents of unskilled workers

### <By age>

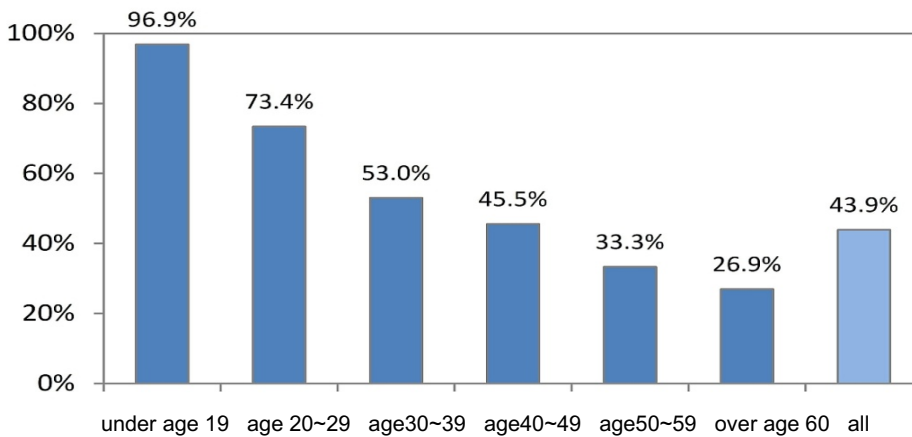
When categorized by age group, age 20 - 29 account for 21% of all accidents of unskilled workers. This is the highest among other age groups.

Also accidents of unskilled workers aged 20-29 years old account for 70% of all dead or injured workers.

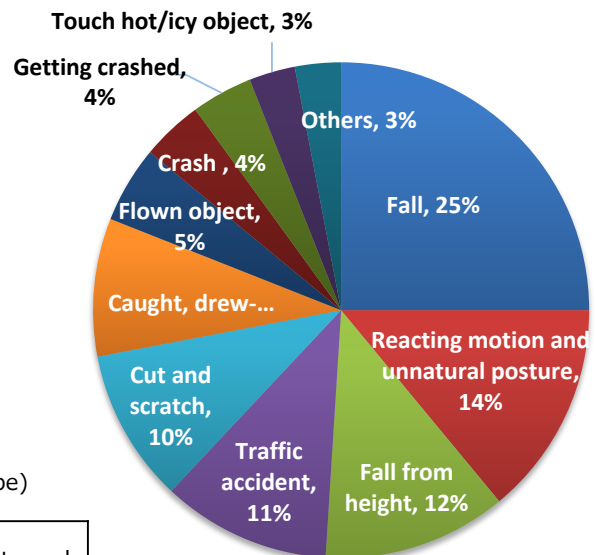
Dead or injured accidents of unskilled workers by age (2015, commerce)



Ratio of unskilled workers in dead or injured accidents by age group (2015, commerce)



Dead or Injured accidents of unskilled workers by accident type (commerce)



### <By accident type>

When categorized by accident type, falls account for 25% of occupational accidents of unskilled workers in commerce, followed by reacting motion and unnatural posture (back pain, etc.) then falls from height.

Ratio of unskilled workers in dead or injured accidents (by type)

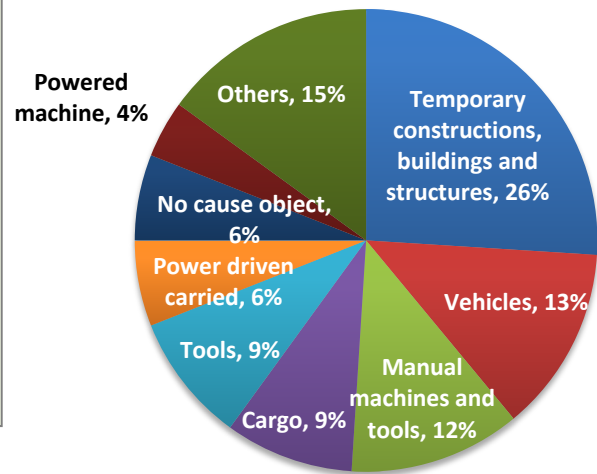
All	falls	reacting motion and unnatural posture	falls from height	traffic accidents	cuts and scratches
43.9%	36.1%	47.9%	40.0%	46.5%	56.5%

Reference: Ministry of Health, Labour and Welfare (2014)

Injury of unskilled workers in casualties and injuries categorized by object (commerce)

**<By object>**

When categorized by object, the most frequent occurrence is attributed to "temporary construction, building or structural object" accounting for 26%. Example of this is falling on the floor or falling from stairs in a building. Next is "vehicle" which consist of traffic accidents involving cars and trucks, and "manual machine/tool" includes back pain a worker may suffer when they push a cage cart or hand cart.



Ratio of unskilled workers in casualties and injuries (by object (middle classification))

All	temporary construction, building or structural object	vehicle	manual machine /tool	load	Tool
41.7%	37.9%	45.7%	51.7%	47.3%	44.3%

Reference: Ministry of Health, Labour and Welfare (2015)

(Reference)

<Trend of occupational accidents of dispatched workers (manufacturing)>

	2010	2011	2012	2013	2014	2015
Dead or injured (persons)	217	227	210	254	311	311

<Trend of occupational accidents of foreign workers (all industries)>

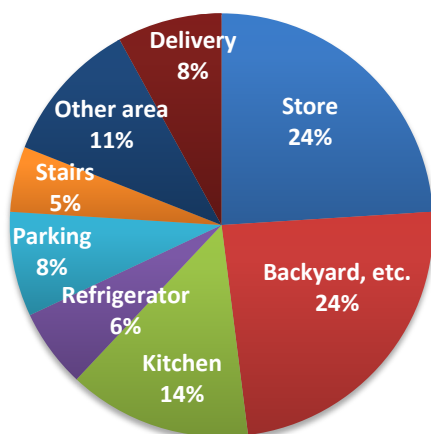
	2010	2011	2012	2013	2014	2015
Dead or injured (persons)	1,265	1,239	1,292	1,548	1,732	2,005

Reference: Ministry of Health, Labour and Welfare (2015) Analysis of occupational accident occurrence

### 3 Characteristics of occupational accidents in commerce

- ◆ Falls are the most frequent accidents, and section (1) shows details by analyzing a report of dead or injured accidents compiled by a labour bureau in 2013.
- ◆ Section (2) introduces analysis of occupational accidents in a super market group that we interviewed.

#### (1) Details of occupational accidents in retail



In 2013, 695 accidents occurred in retail most frequent of which are due to "falls" which account for around 30%, The pie chart on the left shows the work areas where "fall" accidents frequently occur.

Accidents in work areas such as backyard, kitchen, and refrigerator room account for 44% of all "fall" accidents.

The following bar charts show details of the analysis of accidents in each area.

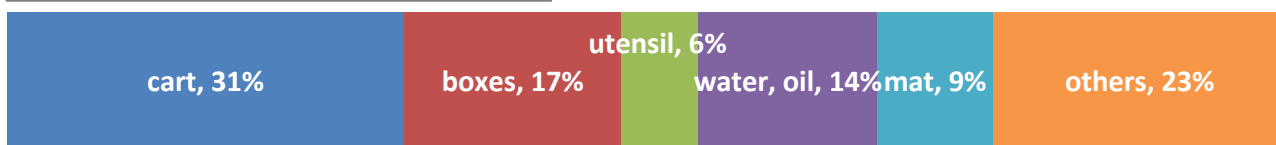
Safety activities, especially Sorting and Setting-in-Order are necessary in this workplaces.

#### ① Fall accidents in selling area (place a worker fell)



- Tripped and fell on a basket, a cardboard box, a container, or a cable around the register or counter.
- Fell when carrying a product or utensil, or standing on a chair to display products.
- Tripped by a box and fell on the floor when a worker hurriedly serviced a customer.

#### ② Fall accidents in backyard, etc.



- Tripped and fell on a hand cart, cart rack, cardboard box, styrene foam or container.
- Slipped and fell on water, oil, detergent or mat.

#### ③ Fall accidents in kitchen or refrigerator room



- In the kitchen, slipped and fell on water, oil or detergent on the floor, or slipped and fell on a drain grate.
- In the refrigerator room, slipped on ice, or tripped and fell on a refrigerator case or cart.



④ Fall accidents in parking



- Tripped and fell on a car stop, chains, or a step.
- Slipped and fell in rain or snow

⑤ Other fall accidents in a store



- Falling in stairways often occur

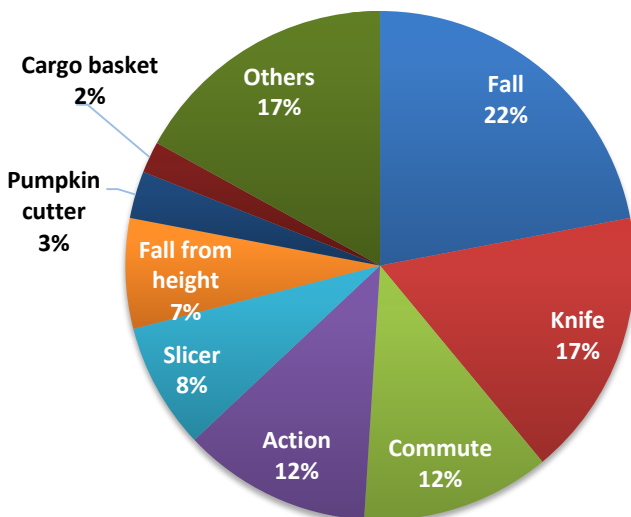
**(2) Details of occupational accidents in super market**

Annual analysis report of occupational accidents in a super market.

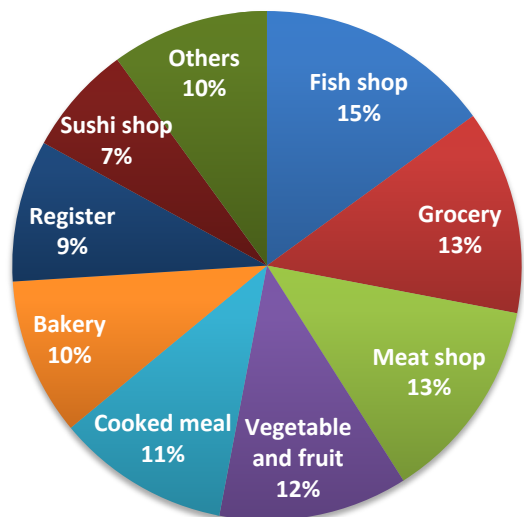
① By cause  
 "Fall" accidents are most frequent when a worker slips or stumbles, followed by "cut with knife". Accidents caused by commute are not considered occupational accidents, but many workplaces conduct safety activities on traffic accident prevention.

② By section  
 Accidents in the fish seller section is the most frequent. However, all super market sections experience certain accidents thus individual safety activities are necessary in each section.

<① by accident cause>



<② by section>



## (1) Safety and health training is particularly important for unskilled workers

### 1 Prevent occupational accidents with safety and health training

Why is safety and health training important? There are various dangers in workplaces, thus many occupational accidents still occur.

To prevent occupational accidents, it is essential to perform the following:

- ① To eliminate "unsafe state" of equipment.
- ② To eliminate "unsafe behavior" of workers.

※ **Unsafe state** . . . State in which a machine or equipment may cause an accident in the workplace.

Example: "There is no enclosure for moving machines", "There are no handrails, etc. for high altitude work areas. "An object is stacked badly, and it can fall", "A worker doesn't wear designated attire".

※ **Unsafe behavior** . . . Behavior that might harm the safety of a worker or others in the workplace. Unsafe behavior is normally performed to reduce process, process time or cost. It is important to prevent or handle unforeseen events caused by "human error".

Example : • "This is alright", "This is troublesome", "Everybody does this".

- A worker acts with confidence because of their experience. "I won't cause an accident because of my experience"

For this reason, the Industrial Safety and Health Law require companies to provide safety and health training at the time of employment.

Unskilled workers who are unfamiliar with the workplace are not fully aware of the dangers and do not learn safety working methods. Due to this, there is a high risk of suffering from work-related injuries.

"Safety and health training for unskilled workers" is aimed to train those who can't avoid danger by themselves and who can't perform safe operation sufficiently. It teaches them how to avoid dangers in the workplace and work safely.

### 2 Contents of safety and health training

What should you teach in safety and health training for unskilled workers? Industrial Safety and Health Law requires companies to teach the contents shown in the table in the next page (reference) when they employ new workers.

To make a training effective, please refer to the "Steps of the Safety and Health Training for Unskilled Workers" found in the next page.

The details of each item is explained in "Steps of the Safety and Health Training for Unskilled Workers" on page 18 and subsequent pages.

(Reference)

**[Contents of new worker training designated by law]**

(Article 35, Ordinance on Industrial Safety and Health)

- ① Matters related to danger or toxicity of machines, etc., or raw materials, etc., and matters related to methods of handling thereof.
- ② Matters related to performance of safety devices, harmful substance control devices, or of personal protective equipment and matters related to methods of handling thereof.
- ③ Matters related to operation procedures.
- ④ Matters related to inspection at the time of commencement of work.
- ⑤ Matters related to the causes and prevention of diseases of which workers are susceptible to related to the work concerned.
- ⑥ Matters related to housekeeping and maintenance of sanitary conditions.
- ⑦ Matters related to emergency measures and evacuation at the time of an accident.
- ⑧ In addition to what is listed in preceding each item, matters necessary for maintaining safety and health related to the said work.

### Steps of the safety and health training for unskilled workers

- 1 Understanding the various types of dangers at workplace . . . P18
- 2 "Might" questions can notify workers on the occurrence of danger . . . P33
- 3 Teaching fundamentals for accident prevention (Part 1) . . . P35
  - Let workers understand various rules and activities for safety and health
    - Safe operation starts with the proper attire
    - Implementing operation procedures
    - Implementing 4S and 5S activities
    - Near-miss (Hiyari-Hatto) activities
    - Hazard prediction training (Kiken-Yochi training / KY training / KYT)
    - Risk assessment
    - Visualization (Mieru-ka) of danger
- 4 Teaching the fundamentals for accident prevention (Part 2) . . . P51
  - Carry out safe operations to improve workplace safety
    - Points for Preventing falls
    - Points for preventing back pain injuries
    - Points for preventing falls from height
    - Points for preventing cuts and scratches
    - Points for preventing getting caught or drawn in the machine
    - Points for preventing heatstroke
- 5 Teaching the fundamentals for accident prevention (Part 3) . . . P60
  - Teach the right actions to take during occurrence of accidents or abnormal situations
    - Handling abnormal situations
    - Handling occupational accidents (management)

## (2) Provide safety and health training repeatedly

○ Repeat until safety and health training is understood

Safety is effective not by knowing but by actual performance.

For this reason, it is important to repeat safety and health training to familiarize new employees with it. (Then, it is important to repeat safety and health training and to let worker get accustomed to it when a company employ new worker and when they are not used to it.)

○ Repetition and confirmation is necessary

It is difficult to acquire safety operations through one safety and health training session.

For this reason, it is important to repeat safety and health training after one week, one month, three months, a half year, and one year later.

Then check whether the training was understood or not. The following is an example of a checklist used at the workplace for reference.

### Check list to see whether a worker understood the safety and health training (example)

#### 【Learning checklist】 meat shop

Necessary qualification (5 S standard position management)

\* Check every three months.

Check point	OK, Worker's check	OK, chief's check	Comment (in interview)
Do you clean shop aisles as stated in the manual?			
Do you return tools and equipment to its proper place?			
Do you wash a kitchen knife on the side of the sink?			
Do you wash cloths first by pre-wash in each color, then by wash with designated detergent?			
Do you polish refrigerator and floor to the corner in cleaning?			
Do you clean joint basin when you clean the refrigerator and floor?			
Do you place cardboards in its proper place after folding to prevent them from falling?			
Do you put a new trash bag after you clean up the old bag?			
Do you use (white) cloth for cleaning?			
Do you clean the chopping board as stated in the manual?			
Do you wash the trash net, lid and other equipment when you clean the sink?			
Do you wash the tray after it is soaked it in hot water?			
Do you refill detergent using the designated container?			
Do you clean the meat slicer body and parts as stated in the manual?			
Package management	Do you practice first-in, first-out?		
	Do you put trays upside down to protect from dust?		
	Do you store it in order in its proper place (To prevent overloading)?		

※After a worker checks by themselves, chief checks it.

Name:

Job start date:    /    /    (year/month/date)      Check date:    /    /    (year/month/date)

## Checklist to see whether a worker understood the safety and health training (example)

<Learning checklist for safety and health training for new employees (after training)>

Name: \_\_\_\_\_ Training date: \_\_\_\_/\_\_\_\_/\_\_\_\_ (year/month/date)

Checker:

Learning check

■ Q1 Choose an appropriate word for ( ) from the word list below.

Mechanism that occupational accident occur follows four steps: ① ⇒ ② ⇒ ③ ⇒ ④.

①( ): Factors that cause workers to get injured when they come in contact with people, facilities, machinery, tools, etc. Knowing this factor is the first step to safety.

Example: fryer, meat chopper, knife, heavy tools, etc.

②( ): Status that ① can possibly harm a worker.

Example: Deep-frying, cleaning a knife or cutter, walking on a floor stained by oil, carrying heavy object, etc.

③( ): Status that ① and a worker almost get touch, and they feel surprised or in danger.

Example: Oil splashes when frying food, almost caught in rolling object, slip of a knife from hand, slip and fall, etc.

④( ): Status ① and a worker get touch, and they get injured. Some cases result in fatality.

Example: Touch a moving cutter and lose a finger, fall and fracture a bone, get back pains when lifting heavy objects, etc.

danger    danger source    occupational accident    accident

■ Q2 Choose an appropriate word for ( ) from the word list below.

To prevent injuries, it is essential not to approach the danger source. So, the following ten advices of safety action and safety operation are very important.

① Follow ( ), designated ( ) and ( )!

② Implement "( )" that you should discard unnecessary objects and "( )" that you should put objects in its designated place!

③ In case of trouble, "( )", "( )" and "( )".

④ Use tools and utensil ( )!

⑤ ( ) put your ( ) in moving parts! Stop the machine every time you clean it!

⑥ Work in designated safe and clean ( )!

⑦ Be careful when you handle ( )!

⑧ Perform machine ( ) every time you start operation!

⑨ Work with preparing for the risk that "( )" a danger!

⑩ Be aware of danger as a ( )!

•wait    •rules    •operation standard    •danger    •setting-in-order    •stop    •could be  
 •appropriately    •call    •sorting    •Never    •attire    •regulations    •heavy object    •  
 hand    •inspection

**For new employees  
【after one week】**

# Safe operation self-check sheet A

Company name \_\_\_\_\_

Signature \_\_\_\_\_

Start date (year/month/date) \_\_\_\_\_

Confirmation date (year/month/date) \_\_\_\_\_

Signs 【O: perfect, no problem】【△: cannot do perfectly】【×: cannot do, problem】(Not applicable: —)

Check items	Self-check
	Check O/△/×
1 Do you wear work clothing and protective equipment properly according to the rules?	
2 Do you follow the identified work procedures?	
3 Do you work in an unbalanced or unnatural position?	
4 Have you cleaned machine during it is moving?	
5 Do you understand the danger or harm possibility of machine, tools or materials?	
6 Have you learned dangerous or forbidden matters of operation and workplace?	
7 Do you remember the three principles of machine problems (stop, call, wait)?	
8 Is there any work procedure you are unfamiliar with?	
9 Do you put tools, utensil and products in its designated place? (Do you leave anything in a temporary place?)	
10 Do you know who you can ask if you have anything to ask?	

11 Please tell us anything that you would like to ask.

( ..... )  
 ( ..... )

12 Please tell us if there is a time when you felt danger.

( ..... )  
 ( ..... )

«Administrator's Remarks Column»

If any answers are △ or ×, write detail of the situation and reason, and countermeasure for it.

.....  
 .....  
 .....

Confirm	Approve	Date

【Follow-up within the first week】

**For new employees**  
**【one month】【three months】**

## Safe operation self-check sheet B

Company name \_\_\_\_\_

Signature \_\_\_\_\_

Start date \_\_\_\_\_ (year/month/date)

Confirmation date \_\_\_\_\_ (year/month/date)

Signs 【O: perfect, no problem】【△: cannot do perfectly】【×: cannot do, problem】(Not applicable: —)

Check items	Self-check
	Check O/△/×
1 Work clothing and protective equipment are worn correctly according to the rules.	
2 There is no work which must be done in an unstable or unreasonable posture / motion.	
3 I work according to the identified work procedure.	
4 I have never put my hand in a machine part while it is still moving even if "it is an easy clean-up or similar operation".	
5 I never operated a machine without its protective cover.	
6 I understand procedures other than regular work such as work preparation and cleaning.	
7 I check for signs of danger or warning indications in the workplace.	
8 There is no problem in the working environment (temperature, sound, air, odor).	
9 I am organized around my life.	
10 There is no pain or discomfort in my back, arms, or legs that is caused by work	
11 I got enough sleep and I do not feel tired.	
12 Any questions or uncertainties about work or site can be discussed with the site manager at any time.	
13 I understand the who to contact / what to do when an injury or accident happens.	

14 Please indicate if you have any problems or troubles at work.

( ..... )  
 ( ..... )

15 Please indicate a time when you performed dangerous activities at work.  
 Also indicate any dangerous work of other staff if any.

( ..... )

«Administrator's Remarks Column»

If any answers are △ or ×, write detail of the situation and reason, and countermeasure for it.

.....  
 .....  
 .....

Confirm	Approve	Date

【3 months after joining the company】

### (3) What you should care in the safety and health training

Unskilled workers who take safety and health training are sometimes not accustomed to work itself. You should pay attention to the following points without using difficult words, but with easy words to understand, and with avoiding one way talk to trainee.



#### Teaching Method

##### ① Teach from the point of view of the trainee

The most important thing is for a trainee to understand the content and practice it.

Therefore, a trainer should match a trainee's pace and level, then check their understanding of the content.

##### ② Teach detail of the point

When a trainer says "carefully" or "cautiously", a trainee can't understand "how much" they should care. "To mix sufficiently" can be said as "to mix until its color get perfectly mixed", and "to hold it carefully" can be said as "to hold it with both hands from the bottom". Explain specifically with detail. Showing a sample or picture is also effective.

##### ③ Teach the reason

If you don't teach the "reason", a trainee can't understand why they should do it, and they might not remember it. A trainer should explain not only "what they should/shouldn't do" but "why they should/shouldn't do" so that they can act appropriately based on a reason.

##### ④ Care about the order of the training content

Care about the order of the training to make it understandable. For example, start with an easy topic and then progressively explain difficult topics. Explain the individual details after explaining the overview.

##### ⑤ Utilize specialized organization and their services

It is not easy to educate effectively with well structured lesson of professional content. Give effective training by utilizing specialized organizations or experienced safety and health consultants.

Answer1 : ①danger source, ②danger, ③accident, ④occupational accident

Answer2 : ①operation standard, regulations, rules ②sorting, setting-in-order ③stop, call, wait ④appropriately ⑤hand, never ⑥attire ⑦heavy object ⑧inspection ⑨might be ⑩danger



#### (4) Safety and health training considering the type of employment

Employers should give safety and health training for all new employees including all types of employment (regular employee and non-regular employee), age and gender. To give more effective training, a trainer should pay attention to the type of employment.

##### <Basic points>

- ◆ Good communication between regular employee and non-regular employee is important to prevent accidents. Make sure that dispatch workers do not feel isolated.
- ◆ Working together on various activities and meetings on safety and health training improves communication between regular and non-regular employees.
- ◆ You should check if any difference occur between regular and non-regular employees on irregular work such as inspection or cleaning.
- ◆ It is important for workers to experience emergency machine stop so that they can perform it during an emergency.

##### ① Safety and health training for dispatch employees (as a dispatching business operator)

- ◆ It is necessary to conduct safety and health training to a dispatch employee at the time of employment.
- ◆ When a company changes the workplace of a dispatch employee, the company should give them a training for changing the work content.

##### (Items to be considered)

- ◆ Dispatching company should conduct safety and health training on the danger possibility in the work place and the training of safe operation based on the operation at the dispatching workplace.
- ◆ Dispatching company should let workers understand the danger and harm of the work in advance based on the danger possibility, harmful operation, and the content of the safety and health training that the clients company gives.
- ◆ Dispatching company should know the content of the safety and health training of the client company.

##### ② Safety and health training for dispatch employees (as a dispatched client company)

- ◆ As stipulated by the laws and regulations, the company should provide special training to dispatched employees that will be engaged in dangerous or harmful operations.
- ◆ The company should provide training for the new work content when the company changes the work content of a dispatched worker

---

### ③ Safety and health training for foreign workers

- ◆ Based on the difference of language and culture, safety and health training especially for accidents that can be caused by lack of communication is necessary.
- ◆ Safety and health training should contain a lot of illustration and movies so that it covers the difference of verbal training.
- ◆ Put importance on safety and health signs so that foreign workers can understand the meaning.
- ◆ Teaching Japanese used in emergency is also important.

### ④ Safety and health training for elderly workers

- ◆ Provide training on the effects of declined physical functions.
- ◆ As learning new things is relatively difficult, repeat training for them.

(Please refer to the next page for details on safety and health training for elderly workers)

---

(Reference) To ensure elderly worker's operation is more safe

It is common to work until 65 years old. However, because of high incidence of occupational accidents among elderly workers, protecting their safety and health is becoming more important.

Also, some inexperienced elderly workers start working in commerce, and measures to prevent occupational accidents based on their health is necessary.

#### **[Challenges for elderly workers]**

##### ◆ Decline of physical functions

- decline of muscular strength
- decline of eyesight
- decline of audibility
- decline of agility

##### ◆ Judgment from knowledge and experience

- confidence in past experience
- some may ignore rules

##### ◆ Difficulty in adjusting to new things

- decline in focus and memory
- dependence on traditional (past) things

##### ◆ Not good at communicating with young people

- difficulty in asking younger people

#### **[Care for elderly workers]**

##### ◆ Improvement of Work Environment

- When handling heavy object, use support tools and work with other people
- Stop working in unstable positions
- Equip hand rail and non-slip parts on stairs and slopes. Eliminate steps or display warning.
- Brighten the workplace, display signs in larger text
- Set alarm louder, inform not only by hearing but by sight
- Adjust operation speed, eliminate operation that needs instant judgment of reaction

##### ◆ Considerations provided by the operation management

- Assign them to a position that needs experience
- Explain role sharing for work
- Provide enough training
- Check their understanding

##### ◆ Thorough compliance to rules

- Educate them on what could happen when they break a rule
- Ask them to be good models for young workers

##### ◆ Promote communication

- Managers should initiate communication.
- Encourage young workers to gain experience and know-how from elderly workers

## II Steps of the Safety and Health Training for Unskilled Workers

### 1 Understanding the various types of dangers at workplace

---

Many safety and health manager notice that many new workers believe workplace is safe without any reasons.

However, many accidents of unskilled workers happens as already explained in "1 Occupational accidents in commerce occur more frequent than other workplaces".

The first step for the safety of unskilled workers is to let them know the various types of danger in the workplace and to improve their awareness of danger.

Showing actual examples of occupational accidents, allows them understand what type of danger would occur at which process.

#### ① Introduce examples of occupational accidents.

Introduction of occupational accident examples is an important method to let them understand the different types of danger at the workplace. Of course, introduction of actual accidents at your company is effective.

Here are six examples, please choose effective ones to explain.

(Note) These examples are obtained by searching on "Website of workplace safety" for "occupational accident examples" with specifying business type. Also, simple accident cases are from "occupational accidents (injured) database" of the same website.

#### ② Introduce near-miss (Hiyari-Hatto) examples.

Near-miss (Hiyari-Hatto) examples are also effective. Introduction of your company's examples is more effective.

(Note) Near-miss examples are also referred to the above website in ① for "Hiyari-Hatto examples".

#### ③ Obtain various examples of occupational accidents.

The most effective explanation of occupational accidents is to introduce the accident that is related to the trainee's work.

If you can't find good examples in this manual, you can find it from websites including "Website for workplace safety" of Ministry of Health, Labour and Welfare. Refer to page 75 for further information.

## (1) Introduce various examples of occupational accidents

Introduction of accident samples is the most effective way to improve workers awareness of safety and health. This will help them understand how they can work safely as well.

Here are accident examples shown on the website "Website of workplace safety" of Ministry of Health, Labour and Welfare.

Let's consider reason and countermeasure on each case together. This can improve the awareness of safety and health.

### 【Case 1】

A worker slipped on the wet floor when he went through the swing door of the shop.

### 【Situation of the accident】

A worker slipped and fell on the floor as he went through the swing door near the cooked meal section of the supermarket because the floor was wet.



### 【Cause】

- ① The wet floor was not mopped
- ② There was no mat located in front of the door to wipe the worker's wet shoes.

### 【Countermeasure】

- ① Mop wet floor immediately
- ② Enumerate potential water leakage by conducting regular workplace inspection and place a mat to prevent a fall. Clean up the floor often and check the cause of leakage to solve the problem.
- ③ Appoint a responsible person for safety and health, and conduct training for workers to prevent fall accidents.

### **[Case 2]**

While disassembling a rolling body of meat chopper, a worker put his hand into insertion slot to push out the rolling part, and his hand got caught in the rolling part.

#### **[Situation of the accident]**

- ① A worker was disassembling the meat chopper to clean the rolling part of the machine.
- ② In the manual, the worker should have pulled out the rolling part by holding a cylindrical sleeve, Instead, he tried to push out the body by putting his hand on the rolling part itself from the insertion slot. He accidentally stepped on the switch pedal and the roll started to move and caught his hand.
- ③ Before he tried to remove the rolling part, he powered on the machine by foot pedal to pull out another plate part.
- ④ Power switch was broken and the machine switch was on the whole time.



#### **[Cause]**

- ① The worker didn't switch off the machine while cleaning it.
- ② Power switch was broken and not repaired.
- ③ The worker didn't unplug the tap to power off the machine. Also, his manager didn't tell him to do it.
- ④ The operation rule was not clearly stated.
- ⑤ Insufficient safety training was given.
- ⑥ Insufficient risk assessment was given.

#### **[Countermeasure]**

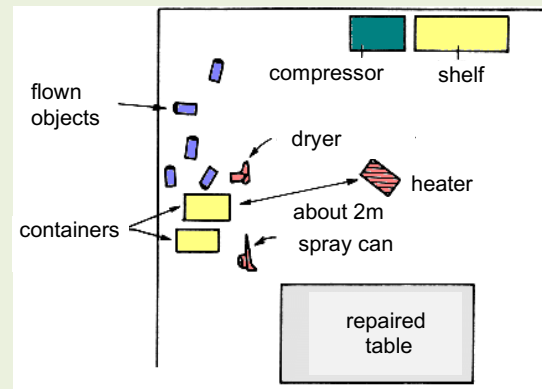
- ① Power off the machine during cleaning, and use a tool if necessary.
- ② Repair broken parts and maintain the machine to work normally.
- ③ Prepare operation manual and inform workers.
- ④ Perform safety training.
- ⑤ Perform risk assessment.

### 【Case 3】

Explosion accident while repairing furniture.

#### 【Situation of the accident】

- ① Other than sales, office T provides repair service of wood furniture, including scratch and crack repair by request from retails. Easy repair is normally made in the warehouse of the office. (Complicated repair is done in the main factory.)
- ② In February, a request to repair the crack of a dining table was received. They started to work on the item in the warehouse. Due to the temperature in the warehouse they closed the windows and used electric heater at the warehouse.
- ③ The repair process was filling the crack with instant adhesive, sanding the surface with sandpaper, and then painting and coating with base blue color, second and finish coating.
- ④ After sanding, they thought the room temperature was too cold and the second coating would get bad when sprayed. They picked up three aerosol sprays of second coating from cardboard box, and heated them with a dryer for 15 minutes.
- ⑤ Then right after they started spraying the base blue paint, something exploded suddenly on the floor near the working area, and two workers got burned.  
Here is the situation after the explosion.  
[1] Broken spray cans for the second coating was scattered..  
[2] The cardboard box was severely burnt.  
[3] Electric heater that was two meters from the box was partially burnt.



#### 【Cause】

- ① When the spray can was heated by a dryer, the can bursted at the bottom and the paint liquid scattered.
- ② Poor ventilation because windows were closed.
- ③ Scattered paint solvent (dimethyl ether) caught fire and exploded due to the heat source of the electric heater.

#### 【Countermeasure】

- ① Choose a safe method such as soaking a can in warm water when heating a second coating. Standardize this process and inform workers.
- ② Ventilate the room sufficiently and prohibit the use of heat source when using inflammable such as organic solvent.
- ③ Perform safety and health training when handling dangerous substances including organic solvent.
- ④ Organize safety management system to perform daily safety management sufficiently.

## 【Case 4】

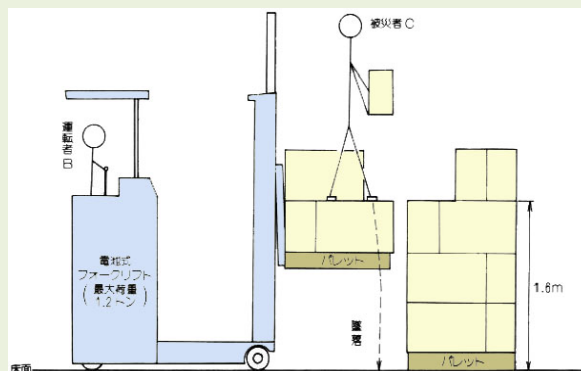
Fall from forklift while handling loads

### 【Situation of the accident】

- ① Company A is a wholesale of liquor and food.

In the arrival and shipment department of products, a worker operates a forklift, and another loads and unloads products.

- ② They started to work from 9:00 am, and repeated the receipt and shipment operation. 3:40 pm, they were going to transport beer, shochu, sake and mirin, worker B operated a battery forklift (max load 1,200 kg), and worker C loaded the product.
- ③ To load products onto the lift, worker C got on the pallet on the forklift and loaded products with the forks up.
- ④ When worker C put his foot on a shochu box to place a mirin box on top of it, the box tilted forward, and the worker fell to the ground while holding the box.



### 【Cause】

- ① Worker B, who didn't have a license, operated the forklift. (unlicensed driving)
- ② They used the forklift in an inappropriate manner with a worker on its forks, and the worker worked on an unstable pallet on the forks at a high altitude.
- ③ Director was not appointed when working with forklift.

### 【Countermeasure】

- ① Never let unlicensed worker operate a forklift (max load over 1 ton).
- ② Appoint a director when using forklifts, and he/she should command the operation based on operation plan.
- ③ Use a temporary scaffolding to avoid working on an unstable pallet at a high altitude.
- ④ Install a lift such as a moving ladder when there are high piles of liquor boxes in a warehouse.
- ⑤ Appoint a director who will command the operation directly including method and operation order when loading or unloading cargo at a height more than 2 meters high.



### 【Case 5】

Stacked wood veneer fell during inspection.

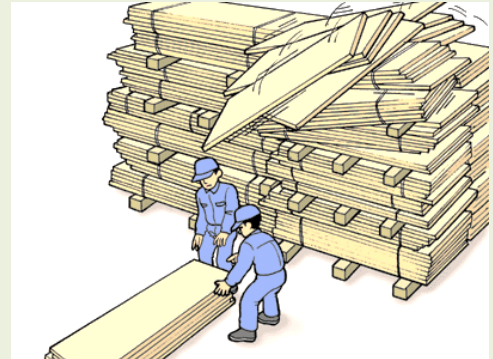
※Piled-up cargo is called "hai" in Japanese.

#### 【Situation of the accident】

- ① Wood veneer<sup>(Note1)</sup> bundles<sup>(Note2)</sup> are piled on both sides of the aisle of a warehouse.

(Note1) Wood veneer is a thin wood sliced into 0.12-0.6 mm thickness and used for surface finishings of furniture and building material.

(Note2) One bundle contains a few hundred veneers and weighs 20-50 kg.



- ② In a morning meeting, senior managing director asked workers to help him in inspect veneers they would bring to an exhibition. Five workers (including senior managing director and managing director) who were in the meeting and one other worker started the inspection at 9:00 am.
- ③ During the inspection, two workers formed a team and took a bundle from the top of the pile onto the ground to check the top veneer's plate surface.
- ④ At 9:25, one of the piles in the north side of the warehouse creaked and suddenly collapsed.
- ⑤ The Managing director near the pile yelled, "Watch out!", but it was too late and about 30 bundles fell on the senior managing director and one worker. The Senior managing director died due to a skull fracture, and the other worker took a seven day absence.

#### 【Cause】

- ① The bundles were not piled safely and stably.
- ② They didn't check the stability of the wood piles.
- ③ The team didn't take the necessary measures to prevent the collapse of the wood piles.
- ④ "Manager for piled cargo" was not appointed.
- ⑤ Lack of awareness of the danger of "piled cargo".

#### 【Countermeasure】

- ① Pile up veneer bundles in safe structure, and set a height limit.
- ② Properly arrange the location of piled cargo and consider safe space and height.
- ③ Prevent collapse by tying the piled cargo by rope.
- ④ Appoint "manager for piled cargo", and let him/her coordinate the work.
- ⑤ Provide training to those who should pile up cargos.

### **【Case 6】**

Got burned by oil splash while picking up the remaining batter in deep-fry oil in kitchen

#### **【Situation of the accident】**

- ① At 7:00 pm, workers A, B and C started cleaning after they finished cooking for the day.
- ② Worker A turned off the fryer for cooling to clean the oil (170°C, 30L) and to pick up the remaining batter. After 30 minutes, worker A brought up the oil heater from the oil using the lever, set the heater position by jig, and then picked up and cleaned the remaining batter using a mesh ladle.
- ③ When he removed the lever from the jig to return the heater to its original position in oil, his hand slipped from the oily wet lever and the heater dropped into the oil pot. Oil splashed onto the worker, and he got burned. Worker B and C also got burned as they were working with him in the kitchen.
- ④ The heater of the fryer was originally designed to move hydraulically and not to drop by accident. However they removed the hydraulic structure and used it manually as the kitchen is small and it occupied some space.
- ⑤ Workers wore simple attire for cooking, and didn't wear any protective clothing such as gloves to protect them from oil splash.
- ⑥ Manager D was responsible for the safety and health of this store. He didn't prepare a cleaning manual including oil cleaning and didn't provide safety and health training on the danger possibility of getting burned by heated oil.



#### **【Cause】**

- ① The moving gear was modified from hydraulic to manual. Oil heater was originally designed to move hydraulically, but they modified the structure to move manually. When the worker handled the heater, it slipped from his hand due to the oily wet lever.
- ② Workers were not wearing proper attire to protect themselves from oil splash when cleaning.
- ③ Manual was not prepared for the operation of cleaning the oil.
- ④ They didn't provide safety and health training for handling heated oil.

#### **【Countermeasure】**

- ① Modify the heater structure to prevent its fall by resetting it to its original hydraulic structure or through any other modification.
- ② Wear proper clothing to protect themselves from heated oil splash.
- ③ Prepare manual for the cleaning operation including picking remaining batter, and train the workers.
- ④ Provide regular training to workers on safety and health, including danger of heated oil splash, safe use of tools and utensil and handling operation.

## (2) Introduce near-miss (Hiyari-Hatto) examples

Here are near-miss (Hiyari-Hatto) accident examples by accident type, introduced on the "Website of workplace safety" of Ministry of Health, Labour and Welfare".  
Let's use these examples for "could be" training.

### <A Fall accident example>

#### Case (1)

A worker was taking down a product case on the upper row in a warehouse, he didn't notice a case near him on the floor, and he almost fell on the case.

##### <Cause>

- ① He was not aware of the case on the floor.
- ② The case was left on a floor in the warehouse and obstructed the worker's operation.

##### <Countermeasure>

- ① Use a stable step, when bringing down an object from the upper shelf.
- ② Regularly clean and place in order the warehouse to prevent objects from obstructing any operation.



#### Case (2)

A worker was taking a bread case from the factory to the parking lot for shipment, he almost fell because he tripped on an empty case on the floor.

##### <Cause>

- ① A large empty bread case was left on the floor of the work area.
- ② Safety check of the work passage was not sufficiently done.

##### <Countermeasure>

- ① Perform safety check of the work area. Don't leave objects even if it would be used for operation. .
- ② When a worker carries a few cases at a time, limit the number of the cases to allow a worker to see clearly where he is going.



#### Case (3)

While carrying product cases at 1:00 am, a worker almost slipped on an icy road.

##### <Cause>

The road was frozen.

##### <Countermeasure>

- ① Wear nonskid shoes.
- ② Light up the road.
- ③ Notice the slippery places during winter.



#### Case(4)

At 8:30 am, while deep-frying in the kitchen, a worker slipped and fell on an oil splash on the floor.

<Cause>

The floor was not cleaned sufficiently.

<Countermeasure>

- ① Wear nonskid shoes.
- ② Place a cover to prevent oil splash on the floor.
- ③ Wipe and clean oil splash sufficiently before working.



#### Case(5)

At 2:00 pm, while carrying a cart after delivery, a cart tire fell off into gutter of the road and the cart suddenly stopped, and then the worker fell on the cart.

<Cause>

The worker didn't notice the gutter.

<Countermeasure>

- ① Install lids to the gutters on the road where workers carries a cart, to prevent trapped by them.
- ② Display a notice that warns level difference and gutters.



#### Case(6)

At 3:00 pm, while servicing a customer on the second floor, a worker lost balance, fell and almost hit the corner of the desk lifting a box of B4-sized copy paper (500 pieces).

<Cause>

She didn't stoop to lift the heavy object.

<Countermeasure>

- ① To prevent back pain, provide basic training of handling of heavy objects.
- ② Don't leave any objects as much as possible in the workplace.



## <B Back pain injury>

### Case(1)

A worker felt back pains when he lifted two tanks of kerosene (18L) one on each hand while going up the steep stairs in front of the customer's house.

<Cause>

The worker tried to lift heavy objects in a hurry.

<Countermeasure>

- ① When a worker lifts up a heavy object, don't lift up at a time, but step down enough and lift up them slowly.
- ② Male worker over 18 years old should handle less than 40% of his weight.
- ③ Female worker over 18 years old should handle 60% of the weight a male worker can handle.



### Case(2)

A worker felt back pains after lifting a box of apples while selling fruits in front of a supermarket at 11:30 am. Worker no longer felt the pain after work.

<Cause>

Lifting a heavy box in an unnatural posture.

<Countermeasure>

- ① Stoop to lift up a heavy object.



### Case(3)

A worker felt strong back pain when he lifted up a rice cooker pot (containing about 8 kg of rice) to place it onto the cooker.

<Cause>

Worker did not have the proper posture when lifting heavy objects.

<Countermeasure>

- ① To lift heavy objects, one must approach the object, put one foot slightly forward, stoop down and hold the object, then slowly lift the object.
- ② Use a cart (if possible) to move heavy objects



## <C Falls from height>

### Case(1)

A worker almost fell down the stairs because she was focused on her mobile phone while walking down the stairway on the way to the workplace.

#### <Cause>

The worker were not looking at her surroundings as she used mobile phone when walking down the stairs.

#### <Countermeasure>

Don't use the mobile phone while walking especially in stairways.



### Case(2)

A worker tried to use a chair with four wheels to get a document file from a cabinet 2.5 m high. The worker lost balance and almost fell as the chair suddenly moved.

#### <Cause>

She used a chair with wheels instead of a step stool to take a file from a high cabinet.

#### <Countermeasure>

- ① Don't use a chair to take files or books from a high cabinet. Instead use a step stool or a step ladder with its lock on.
- ② Fix cabinet firmly on the wall.



### Case(3)

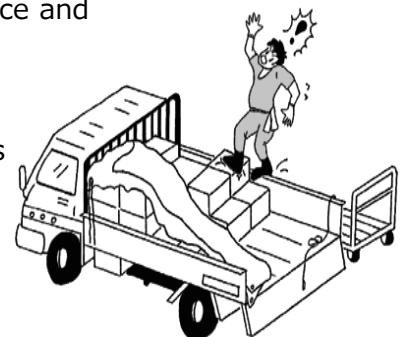
A worker loaded 25 boxes of wood plate (15 kg per plate) onto a truck and was going to cover the boxes with cover sheet. He tied the left side of the cover sheet, and was walking between the products and the right edge of the truck, when he lost balance and almost fell from the truck.

#### <Cause>

- ① The worker walked on unsafe space between the products and the truck edge wall.
- ② He didn't check the space to walk in because he was in a hurry.

#### <Countermeasure>

- ① Prepare safe step for the shipment operation.
- ② Use safe step for the sheet covering operation to avoid working in unsafe areas.
- ③ Wear safety helmet.





#### Case(4)

In a product stockroom, a worker on a stepladder took a product from cabinet and was going to get off while holding the product. The stepladder wobbled and the worker lost balance and jumped off from the ladder.

##### <Cause>

- ① The worker didn't set the stepladder firmly.
- ② He was going to get off from the ladder while holding the product.

##### <Countermeasure>

- ① Use stepladder with its lock fixed.
- ② Get on/off the ladder with at least one hand free.
- ③ If a product is large, two workers should handle it. The worker on the ladder should give the product to another worker on the floor.



#### Case(5)

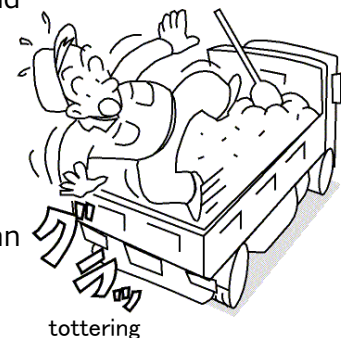
At 2:00 pm, a worker finished loading gravel onto a truck and was leveling the surface. He lost balance and almost fell off, and so he jumped off to the ground.

##### <Cause>

- ① Worker worked on unstable gravel.

##### <Countermeasure>

- ① Work with safety belt on his body in a place where the belt can be locked.
- ② Wear safety helmet.
- ③ Work from outside the truck.



#### Case(6)

At 1:00 pm, when a worker went down stairs in a shop with holding a tailor's dummy, stairs were wet with rain and she slipped and almost fell down the stairs.

##### <Cause>

- ① The worker couldn't see her footing because she was holding the dummy.
- ② The stairs was wet with rain.

##### <Countermeasure>

- ① Hold the handrail with at least one hand while going down the stairway.
- ② Wipe and clean the stairway and floor when it rains as customers might fall too.



## <D Cut and scratch>

### Case(1)

A worker was slicing bread on a work counter in a factory. He almost touched the slicer with his finger as he was slicing the bread by pushing it with his hand.

<Cause>

① The worker used his hand to push the bread instead of using a pushing plate.

<Countermeasure>

① Use a pushing plate when using the slicer.



### Case(2)

A worker was cutting frozen fish (bonito) with a knife on a working table. The knife slipped from his right hand and almost touched his left hand.

<Cause>

Worker didn't wear cut resistance gloves.

<Countermeasure>

① Provide training on fish cutting including how to hold the fish depending on the type of fish.

② Wear protection gloves.



### Case(3)

A worker's middle finger almost touched the slicer without its safety cover while cutting a chunk of pork at a meat shop in a supermarket.

<Cause>

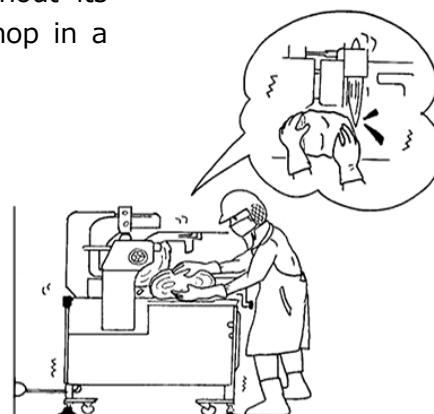
① Safety cover was not on the rolling cutter.

② The worker held the meat directly with his hand.

<Countermeasure>

① Equip the cutter of the slicer with a safety cover.

② Use a safety holder to hold the sliced meat, Don't hold the meat directly by hand.





#### Case(4)

At 5:00 pm, while cutting wood in a factory, a worker tried to remove a chip on a circular saw machine using his left hand, he accidentally touched the switch using his right hand, and the circular saw started to run. He almost got cut on his left hand by the saw machine.

<Cause>

Saw was not equipped with a safety cover.

<Countermeasure>

- ① Equip the saw with a safety cover.
- ② Change the setting of the switch.



#### Case(5)

At 7:00 pm, while cleaning a meat grinder after processing mincemeat, a worker turned off the machine and placed his hand on the cutter near the port. However, the cutter was still rolling freely, and he almost touched the cutter.

<Cause>

- ① The worker tried to touch the cutter too soon after turning off the machine.

<Countermeasure>

- ① Turn off the main switch when cleaning the machine (This gives the machine blades more time to stop turning)
- ② Display a warning sign to notify others that the cutter doesn't stop instantly.



#### Case(6)

At 10:00 am, when a worker sliced raw fish for sushi in kitchen, cutting board stuck to the table and didn't move. She pulled the board hard with her hand, and then a knife on the board jumped and almost cut her hand.

<Cause>

- ① A worker tried to lift up the cutting board with the knife on it.

<Countermeasure>

- ① Always remove the knife from the cutting board.
- ② Assign a place where the knife should be placed.



#### Case(7)

At 8:30 pm at food seller, while a worker was cutting a cardboard by a cutter to lay it under the product on shelf, he almost got cut on his thigh with the cutter with a speedy motion.

<Cause>

He pulled the cutter and cut in a speedy motion.

<Countermeasure>

- ① Use cutter with its blade out as little as possible.
- ② Be aware of the position during the use of cutter.



## <E Getting caught·dragged in>

### Case(1)

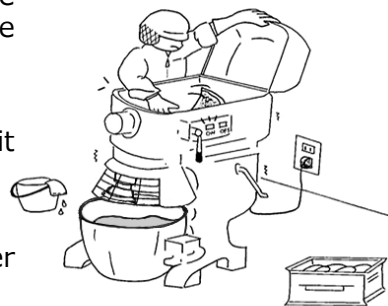
In the meat processing section in a supermarket, a worker switched off the machine to clean the meat remaining so he can process a different type of meat, he put his hand in the mixer though it was still moving, and he almost got caught.

#### <Cause>

He put in his hand while the machine was still moving after it was turned off.

#### <Countermeasure>

- ① Modify the machine setting to interlock so that mixer cover will open only after the mixing blades stop.
- ② Before a worker puts in his hand into the machine, he must first turn off the machine and remove the tap from the power source and display a warning sign "Don't turn on the machine". The worker can start cleaning the machine after making sure that the blades have stopped.



### Case(2)

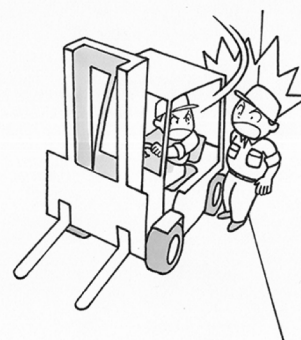
A worker was standing on the left side of a forklift and was speaking with the driver about product inspection in a warehouse. When the forklift started to move by turning to the right, the worker almost got caught between the left rear of the forklift and the wall of the warehouse.

#### <Cause>

The driver started to move the forklift without checking on the worker's position. Also, the inspection worker didn't move to a safe place before the forklift driver started to drive.

#### <Countermeasure>

When operating a forklift, use appropriate hand gestures to signify "Clear right! Clear left! Clear forward!", and check safety of surroundings sufficiently. Workers standing near a forklift should also ensure that they are standing at a safe position where he can be seen by the forklift operator.



### Case(3)

When a worker coordinated shipping products, he rotated a pallet cart with many products on it. But he almost got his foot caught by the rotated cart.

#### <Cause>

He didn't pay enough attention to the tires of the pallet cart.

#### <Countermeasure>

Wear safety shoes while using a pallet cart if possible. Also when changing the cart direction, don't move the pallet cart with its center not aligned to the worker's body center.



## 2 "Might" questions can notify workers on the occurrence of danger

Promoting activities such as questioning situations with "might" question can improve employee's awareness of hazard and help them understand that there are many kinds of hazardous risk and possibility of occupational accidents in the workplace.

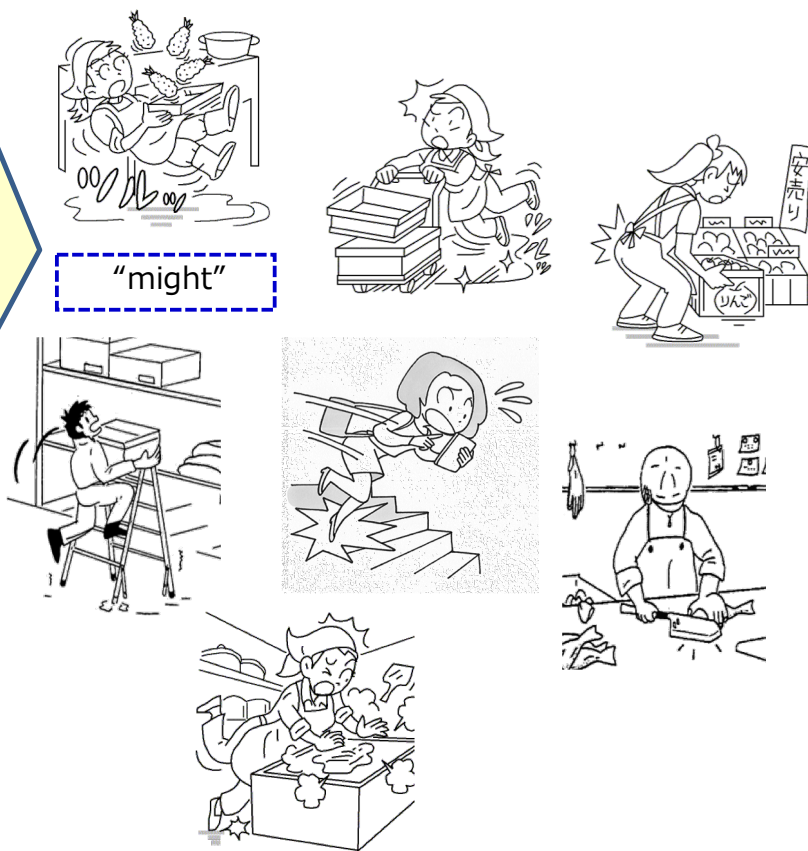
### ["might be" situation of a worker's action]

#### Familiarizing with "might" situations!

A worker "might" trip on an object on the floor, or a worker "might" fall from height. Let employees understand that these dangers might occur.

#### A worker "might"

- slip
- trip
- get back pain
- might fall
- fall by rolling
- cut
- get burned
- get an electric shock
- get gas poisoning
- get lack of oxygen
- be exposed to hazardous material



For example:

- When a worker is walking, he/she "might slip on the floor" or he/she "might trip on an object on the floor".
- When a worker lifts up a heavy object, he/she "might get back pain".
- When a worker takes an object on the shelf using a ladder, he/she "might fall".
- When a worker walks down the stairs while using a smart phone, he/she "might fall down from the stairs".
- When a worker uses a knife, he/she "might cut his/her hand".
- When a worker uses the heater, he/she "might get burnt".
- When a worker cleans a machine as it moves, he/she "might get dragged in it".

## ["might" situations involving an object]

### Familiarizing with "might" situations!

An object might "move suddenly" or "fall from height". Let employees understand that these dangers might occur.

#### An object "might"

- move
- rotate
- fly
- fall
- fall off
- burn
- fall down
- collapse
- explode
- leak



"might"



For example:

- A machine "might run by accident"
- When a machine is moving, a worker "might get dragged in it".
- Stacked product "might fall".
- A cargo container on a path "might lean and fall toward a worker", or "might move suddenly".
- When a worker works on a machine with its power on, the machine "might move suddenly".

### 3 Teaching the basics of accident prevention (Part 1)

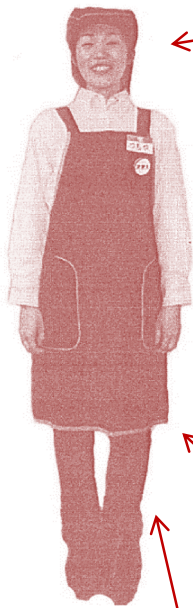
~ Let workers understand various rules and activities for safety and health

#### (1) Safe operation starts with the proper attire

Proper grooming is important, including for safety. For personnel handling foodstuffs, cleanliness is extremely important.

The following is an example of proper attire (for female) in a super market grocery.

It is also good for you to check your attire on the mirror and compare it with the example sign board in a construction site.



#### 1 Head

- (1) Bangs should not cover the eyebrows.
- (2) Long hair should be put up.
- (3) Hair should be its natural color. If you dye your hair, the color should be similar to the color sample. (Manager should judge)
- (4) A worker should not put more than two pierces on their ear. Swinging pierces are not allowed.
- (5) Heavy make up should be restrained. (Eyelash extension, eye liner, etc) (Illustration show a bad sample of bangs.)

#### 2 Shirts

- (1) All buttons should be buttoned.
- (2) Shirt tails should not be tucked into pants.
- (3) As a general rule in cool and cold season, a worker should not wear other clothes on the shirt but they can do under the shirt. ( If he/she can't wear it, they can wear black, navy or gray colored cardigan, etc. between shirts and apron.)
- (4) As a general rule, refrain from rolling up your sleeves.

#### 4 Trousers

Length shouldn't be too long not to touch the floor.

#### 5 Shoes

- (1) Don't thread on the back of your shoes.
- (2) Color: White, black and brown is the best. Don't wear strange color.

#### 3 Apron

- (1) Wear the name badge on the left chest.  
※Trainee should wear trainee badge under the name badge.
- (2) Shoulder belt shouldn't be twisted.  
When waist belt is long, string it through the belt loop.
- (3) Don't put too many materials in pocket.
- (4) Apron: Choose the right size from short or long ones.

(Example of female cashier's attire in super market)

Check your attire on the mirror



Check your attire before the work, following the concept "Safety is based on the proper attire".

#### ① Check area

Place a sign board at the area where many worker come in and out. It is more effective if the sign board is placed where workers can find it easily.

#### ② Check points

Sign board with illustration can easily tell the important points to workers, and a worker can check them on the mirror next to the sign board.

(Example note of "Safety visualization" ( Osaka Labour Bureau))

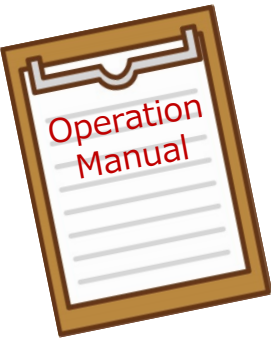
## (2) Implementing operation procedures

Some work procedure may not exist in written form, but in principle, every work has a procedure in place wherever work is performed. An operation manual contains these procedures in written form along with items relevant to safety and health.

The aim of an operation manual is to eliminate “Muri / strain”, “Muda / waste”, and “Mura / nonconformity”, as well as to allow work to be performed efficiently while safeguarding health.

Of course, because the manual indicates what to do and what not to do to maintain safety and health, it is necessary to train employees so that they understand why these rules are necessary and make sure they abide by them faithfully.

In addition, it is essential to perform risk assessment for the work procedures and review them as necessary to further improve safety.

<p>&lt;Implementing Work Procedures&gt;</p> <p>Follow the operation manual when working</p> 	<ol style="list-style-type: none"><li>① Follow work procedures (operation manual) strictly and do not use any other methods to perform work. It is especially vital to recognize the importance of safety equipment and not remove or otherwise render it ineffective.</li><li>② Practice the work procedures indicated in the operation manual repeatedly until you master them.</li><li>③ Abide by all related laws and regulations as well as workplace rules regarding acts that maintain safety and acts that compromise safety.</li><li>④ If you do not know the proper work procedure, do not attempt to perform the work without consulting the person in charge.</li><li>⑤ Avoid accidents due to overconfidence, and do not perform reckless or forcible actions.</li></ol>
---	---

(Reference)

When employees join a company, it is essential to familiarize them with the equipment and tools they'll need to perform the duties required by their assigned role.

The following pages contain examples of the types of materials one can use for employee training. As indicated on Page 14, informing new employees about why following certain procedures is important and what they should look out for is particularly effective.



## New Employee Training Equipment Handling Instructions (Delicatessen Department)

© Follow proper equipment use and cleaning procedures to avoid accidents while performing your duties.

\* The chief will explain the following procedures to new employees before they begin working. If there is no chief on the premises, the subchief will do so instead.

○ Training Date (Day/Month/Year):    /    /    ○ Trainer:            ○ Branch:                    ○ Trainee

Equipment	Precautions	Trainee Signature
Kitchen Knife	<ol style="list-style-type: none"> <li>1. When putting down a knife, face the blade away from you (to prevent your fingers from being cut).</li> <li>2. After use, do not leave the knife lying around. Immediately wash it and put it away (do not leave it in the sink either).</li> <li>3. When carrying a knife while moving, do not point the edge of the blade in anyone's direction (to prevent injury).</li> <li>4. Before passing behind anyone, be sure to alert them (or they may suddenly turn around and be wounded by the knife).</li> </ol>	
Steam Convection Oven	<ol style="list-style-type: none"> <li>1. When the interior is hot, open it while keeping the door between you and the oven (to prevent burns to the face or hands).</li> <li>2. Do not swing the door open. Let the heat escape before opening it completely (to prevent burns).</li> <li>3. Be sure to wear heat-resistant gloves when removing or inserting items (to prevent burns).</li> <li>4. Do not prepare items with different cooking times at the same time.</li> </ol>	
Fryer	<ol style="list-style-type: none"> <li>1. As a general rule, do not lift the heater when there is oil inside (it could drop and spill the oil, causing major burns).</li> <li>2. Do not lift the heater when it is plugged in. Unplug it first (to prevent fires).</li> <li>3. Make sure to add the appropriate amount of oil (to prevent fires).</li> </ol>	
Sushi Robot	<ol style="list-style-type: none"> <li>1. Install the sushi ball molding device cover before use (to prevent your fingers from being cut).</li> <li>2. When removing the cutting section, make sure to unplug the device first (to prevent your fingers from being cut).</li> <li>3. Do not insert your fingers after removing the hopper safety cover (to prevent your fingers from being caught in the device).</li> <li>4. When replenishing the supply of vinegared rice, do not place your fingers inside the hopper (to prevent your fingers from being caught).</li> <li>5. Unplug the device before cleaning (to prevent the aforementioned accidents).</li> </ol>	
Stepladder	<ol style="list-style-type: none"> <li>1. Do not use the top step. Do not place only one foot onto the ladder (to prevent falls).</li> <li>2. Do not place only your tiptoes on the ladder (same as above).</li> <li>3. When it is slippery, remove all oil stains before use (same as above).</li> <li>4. Do not use on uneven or unstable surfaces (same as above).</li> </ol>	
Cage Truck	<ol style="list-style-type: none"> <li>1. When using the cage truck to transport items, move it by pulling it (to prevent collisions with someone in front of you).</li> <li>2. When stopping the cage truck and leaving it somewhere, be sure to use the stopper (to prevent collisions).</li> <li>3. Be careful not to lose your balance on slopes (exercise special caution when transporting foldable objects).</li> </ol>	
Freezer/ Mallet	<ol style="list-style-type: none"> <li>1. If you are accidentally locked inside of the freezer, use the mallet installed inside to hit the door opening device.</li> <li>2. If there is no mallet available, turn the large screw on either side of the door to escape.</li> </ol>	
Workroom Floor	<ol style="list-style-type: none"> <li>1. If you spill oil, clean it immediately to prevent falls.</li> <li>2. Do not stack oil-absorbent mats (this can lead to people tripping and falling).</li> </ol>	
Lifter	<ol style="list-style-type: none"> <li>1. When receiving items, wait two meters or more from the lifter when items are being unloaded from the truck (to avoid injury in the event the cage cart falls).</li> <li>2. Bring in the items after the driver lowers the cage cart onto the slope from the lifter.</li> </ol> <p>* When arriving at work, be especially careful when entering if items are being unloaded from the truck.</p>	

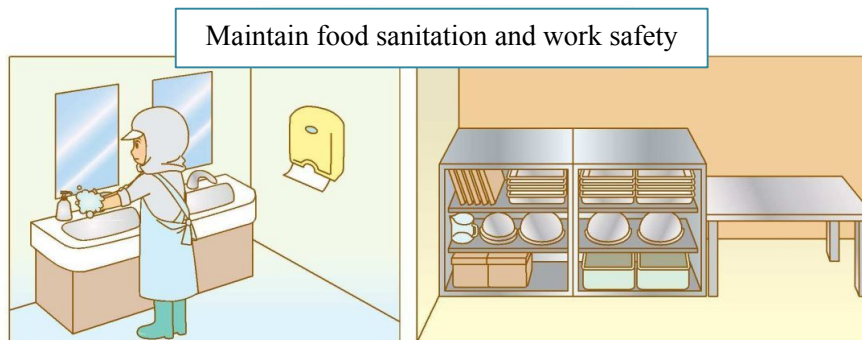
\* After explaining these procedures to employees, give them a copy for review.

### (3) Implementing 4S and 5S activities

4S consists of four ideas, "Seiri / Sorting", "Seiton / Setting-in-Order", "Seiketsu / Standardizing" and "Seisou / Shining". A workplace can implement these concept with these 4S activities. You can add "Shukan / Sustaining", which is to learn the 4S into mind. This is called as "5S activities".

These are fundamental activities to work safe and effective. Let's start with these 4S activities.

Also, 5S activities are important for food-related industries in the view point of preventing of food poisoning and foreign object contamination. Please perform 4S and 4S activities for safety and health at workplace.



#### ① Seiri / Sorting

Divide up items into necessary and unnecessary, and dispose of unnecessary items.  
(If unnecessary items are left lying around, this increase the risk of stumbling and falling, and also worsens the flow of operations.)

#### ② Seiton / Setting-in-Order

Store the necessary items in a manner that is easy to use and understand.  
Return items to the original position after use.  
(Searching a necessary item can decrease the work efficiency. Also, Seiri / Setting-in-Order makes missing items and other problems easier to detect for food-related operations, and enables quicker discovery of foreign object contamination.)

#### ③ Seiketsu / Standardizing

Eliminate dirt and trash from the area and keep cleanliness. Keep "Seiketsu" and cleanliness of workplace and machinery, as well as work attire and worker themselves.  
(This is crucial for maintaining normal operation of machinery. Also, maintaining sanitation and cleanliness in the workplaces is crucial for preventing food poisoning when handling food products.)

#### ④ Seisou / Shining

Eliminate dirt and trash from machinery and the operation area.  
(Immediately wiping up wet spots on the floor is crucial for preventing slipping incidents.)

#### ⑤ Shukan (or Shitsuke)/ Sustaining

Make a habit of follow the rules and operation procedures. Don't behave wrongly with a subjective impression of "it's troublesome" or "my rule is better". Repeating the assigned procedures will make yourself be accustomed to safe operations.  
(Just understanding seiri, seiton, seiketsu and seisou is not enough, but it is important for employees to also make a habit of carrying out these procedures.)



## <Examples of the 2S Initiatives for General Retail Stores>

Achieving strengthened sales performance and improved productivity  
with 2S initiatives as the foundation.

~2S is profitable~

### 1. Overview

"2S" initiatives are simultaneously the foundation for both safety and sanitation activities and improvement of on-site operations.

About 10 years ago at Company A, 2S-based small group improvement activities were implemented as a management decision made by the company president. To expanding these activities, the company decided to carry out improvement activities with the goal of strengthening sales and raising productivity, and learned the specific methods for doing so from automobile manufacturers.

Currently, training is held regularly every year for all full-time and part-time operators to ensure that improvement activities are understood. Also, small group initiatives based on 2S, presentations in the store, area competitions, and nationwide competitions are implemented for each department at all store locations. In addition to acknowledging excellent performance, these competitions strive to expand such performances to other locations, and already have achieved major results such as strengthened sales and increased productivity company-wide.

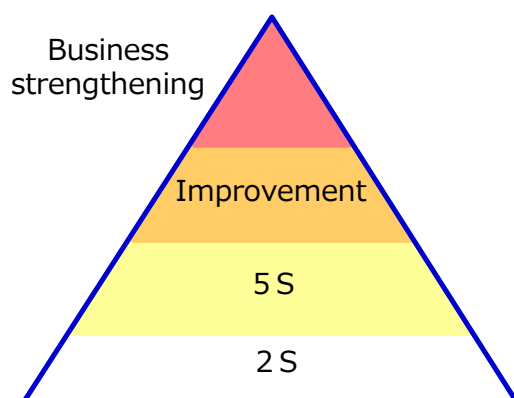
Although the operators felt "forced" to do these things at first, the improvement activities have in fact made the site a better place to work in some cases, and have never made anything worse. For this reason, operators are now eager to participate.

### 2. Fundamental thought process

2S is the foundation of improvement activities, and can be used to expand operation improvement and business improvement for the goals of strengthened sales and higher productivity.

Through improvement activities, waste is eliminated, and the time saved can be applied to strengthening sales and increasing productivity, aiming for improved business performance.

- (1) Operation improvement refers to eliminating operations that are unnecessary and expanding those that are beneficial.
- (2) Business improvement refers to eliminating product stock that is unnecessary and expanding those that are beneficial.
- (3) Improvement activities should be carried out in accordance with the QC story.
- (4) Unnecessary product stock creates unnecessary operations, so carrying out joint management of operations and stock to promote improvement is important.



What is 2S? . . . Building a foundation for improvement

What is improvement? . . . Activities for strengthening the business

- 2S and 5S are the foundation of improvement activities.
- Without these in place, moving on to improvement activities and business strengthening is impossible.
- Start by solidifying the foundation of 2S.

## (4) Near miss (Hiyari-Hatto) activities

### A. About near-miss (Hiyari-Hatto) activities

In the course of work, sometimes operators come very close to injury. The process of compiling these "Hiyatto shita (I got chills)" or "Hatto shita (I had to stop to catch my breath)" moments and applying them to activities with the goal of injury prevention is called "near miss (Hiyari-Hatto) activities." These activities are an effective method for grasping what dangers (injury risks) there are in the workplace.



### B. Heinrich's law

From analysis of large numbers of workplace accidents, we found that for every individual fatal accident or serious injury, there were 29 minor injuries and 300 accidents (which did not cause injury) all caused by the same unsafe act. This relationship is called Heinrich's law.

If the numbers of these 300 near miss (Hiyari-Hatto) incidents is reduced, the number of minor and serious injuries can also be expected to decline, so these types of accidents provide beneficial information which can prevent fatal accidents before they occur.

### C. Raising awareness of dangers through near miss (Hiyari-Hatto) activities

Near miss (Hiyari-Hatto) incidents provide extremely precious information by identifying dangers in the workplace. Aside from standard near miss (Hiyari-Hatto) activities, the following are some other applications.

- [1] Making inexperienced workers aware of the dangers in the workplace in an easy to understand way.
- [2] Reporting near miss (Hiyari-Hatto) incidents can raise operators' sensitivity to danger.
- [3] If hazard prediction training (Kiken-Yochi training / KY training) and risk assessments are conducted based on near-miss (Hiyari-Hatto) information, this can make activities more familiar.

## ■ Important points for implementing "near-miss (Hiyari-Hatto) activities"

### (1) Reporting near-miss (Hiyari-Hatto) experiences

Memories fade over time. Report these experiences at the end of your work using the prescribed form.

### (2) Do not attempt to find fault with the reporting operator

Near-miss (Hiyari-Hatto) incidents arise from unsafe actions, so carry out thorough safety activities only and refrain from attempting to find fault with the reporting operator. Failure to do so will result in a decline in the number of reports received.

### (3) Use near-miss (Hiyari-Hatto) experiences as opportunities for improvement

If no improvement activities are conducted following a report, this will have a negative impact on participants' motivation to submit reports. Trace back to the root cause and implement countermeasures at an early stage.

### (4) Sharing near-miss (Hiyari-Hatto) information

Near-miss (Hiyari-Hatto) information should be provided promptly to operators carrying out similar operations in order to prevent the same problems from repeating themselves.

## ○ Near-miss (Hiyari-Hatto) report form

Two example report forms for reporting near-miss (Hiyari-Hatto) experiences are included on pages 42 and 43. The sample form on page 42 is taken from the labour bureau's website (the filled-in sample was created for this manual). The sample form on page 43 is an actual reporting form used at one of the company's locations.

\*The labour bureau website materials introduce near-miss (Hiyari-Hatto) implementation in detail, covering the following topics: "near-miss (Hiyari-Hatto) actual and hypothetical examples," and "implementing the near-miss (Hiyari-Hatto) reporting system." Sample reports are also posted.

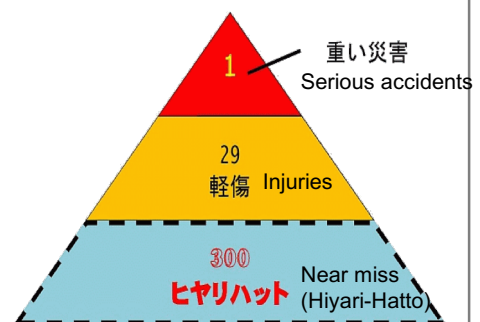
• [http://niigata-roudoukyoku.jsite.mhlw.go.jp/library/niigata-roudoukyoku/roudoukyokunituite/kantokusyo\\_oshirase/04/260711\\_04hiyarihato\\_houkokuseido.pdf](http://niigata-roudoukyoku.jsite.mhlw.go.jp/library/niigata-roudoukyoku/roudoukyokunituite/kantokusyo_oshirase/04/260711_04hiyarihato_houkokuseido.pdf) (Niigata labour Bureau)

## <Keywords>

### Heinrich's law (1:29:300 law)

This law was announced by Heinrich, a safety technician at a damages insurance company.

"Out of 330 accidents caused by the same human, if 1 of them is serious (including but not limited to fatal accidents and those involving severe injuries such as severed limbs), 29 of them will be minor (scrapes and cuts treatable with first aid alone), and 300 will be accidents without any injuries involved (incidents with the possibility of injuries or damages)." In other words,



This suggests that thousands of unsafe actions and attitudes are in the background for the 300 injury-free accidents. Also, although Heinrich himself stated that this ratio differs between steel frame construction and clerical work, not so much the numbers themselves but rather the thinking behind this law is what continues to be used today as a means of expressing the relationships between minor and major accidents.

Related research includes Bird's accident ratio work, which analyzed 1.75 million accident reports from 297 companies, calculating the following ratios. 1 (serious injury or damages) : 10 (injury) : 30 (damages only) : 600 (accidents without any injuries or damages).

The important part of these research results is not the ratios themselves, but rather the finding that there are a multitude of risks and causes in the background of these accidents. This shows that maintaining the best possible awareness of near-miss (Hiyari-Hatto) incidents and other information, and implementing handling measures rapidly and appropriately is important.

(Workplace safety site (health and safety keywords))

Example

Report type: Near-miss/Potential Near-miss

↑Circle one

### Near-miss/Potential Near-miss Report (Hiyari-Hatto/Soutei-Hiyari-Hatto)

Name and Post	In charge of ○○ ○○ ○○		
Time	___/___/2016 ( ___ day) at approx. 1:30 p.m.		
Place	Confectionery workshop	Action being performed	Cleaning the dough rolling mill
Summary of near-miss/feeling of danger	While cleaning the dough rolling mill without stopping it from rotating, my arm nearly got caught in the machine.		

What were the issue (the unsafe conditions or actions)?

[In the fields where a problem occurred, write what happened as well as any potential solutions.]

1) Work environment issues

2) Equipment issues

The rollers could rotate even with the cover removed.

3) Procedural issues

I cleaned the roller body manually without cutting off the power and while the rollers were rotating.

Individual issues

Because I was in a hurry to move on to the next task, I cleaned the rollers while they were rotating.

Physical and mind analysis

(circle every item that fits)

1. You weren't able to see(hear) well
2. You didn't notice it
3. You forgot it
4. You didn't know it
5. You didn't think well
6. You assumed it was alright
7. You were in a hurry
8. You felt unpleasant
9. You were tired
10. You took action automatically
11. It was difficult to do
12. You lost body balance

Measures to be taken in the future (your suggested actions for improvement)

Measures to be taken in the future (your suggested actions for improvement)

Perform the task when sufficient time is available.

Make it so that the device cannot operate if the cover is removed.

Use roller materials that prevent the dough from sticking.

※To be filled out by the Safety Supervisor: The reporting individual should not fill this out

(A) Display a warning notice to remind employees to turn off the power when cleaning.

(B) Clarify the proper work procedure.

(C) Consider equipment that turns off when the cover is removed.

[Near-miss (Hiyari-Hatto) Report Example 2]

This is an example of a simplified report form. Simplifying the form could be a good idea if the priority is to get employees to submit a report as soon as possible.

Near-miss (Hiyari-Hatto) Card		Branch Name	Date of Submission	
		Department	Name	
Please write what you saw or what you felt was dangerous.				
1. When/Where (Department, location, machine, etc.)				
.....				
.....				
2. What seemed to happen at that time? (Situation)				
.....				
.....				
3. What would happen if no action is taken? (possible accidents to happen)				
Confirmation Date	Action Taken (Health Committee Investigation results)	Responder(Check any that apply)		Feedback for Submitter
		Store(Your store)		Completion Date
		Headquarters(*1)		
Confirming Individual		<ul style="list-style-type: none"> <li>• Store Development Department</li> <li>• Product Department ( )</li> <li>• Store Support Department</li> <li>• Other ( )</li> </ul>		*1: If a request to headquarters is necessary, encircle the responsible department listed to the left and send a copy to Human Resources.
Note) Once the form has been addressed, store it along with the health committee records.				

## (5) Hazard prediction training (Kiken-Yochi training / KY training / KYT)

### A. Use hazard prediction training (Kiken-Yochi training / KY training) to increase awareness of risks.

Hazard prediction training (Kiken-Yochi training / KY training) is the process of talking about hidden dangers in working posts and operations, as well as the accidents that can result from these dangers, and increasing awareness of specific risks in the hope of preventing accidents.

This type of training is effective for improving risk awareness among inexperienced workers.

### B. How to implement hazard prediction training (Kiken-Yochi training / KY training)

One method involves using illustrated sheets and other materials depicting the workplace. The following is an example of one such initiative.

#### 4. Round KYT

1. Awareness of current conditions . . .  
Where are the hidden risks?



Point out the problem areas and identify the hidden dangers. Allow participants to point out the problem areas freely, avoid criticism from other members, and guide the group to find as many points as possible.

2. Investigating the true nature . . .  
This is the point where the risk lies.



When the risk content has been identified, have the members consider the causes of problem areas and which ones should receive priority for handling, then organize their ideas.

3. Establishing countermeasures . . .  
What would you do?



Using the organized problem areas, prompt the members to develop countermeasures for solving or improving the situation.

4. Setting goals . . .  
We will approach things like this.

Have the members discuss the countermeasures suggested and compile them with the agreement of the group.

## (6) Risk Assessment

### What is Risk Assessment?

Risk assessment is a method for finding potential **risks or hazards** hidden in the workplace, categorize these risks according to priority, in order to mitigate or eliminate them. This is an effective method for preventing the occurrence of occupational accidents as well as preventing severe injury should an accident occur. The benefits of risk assessment are as follows:

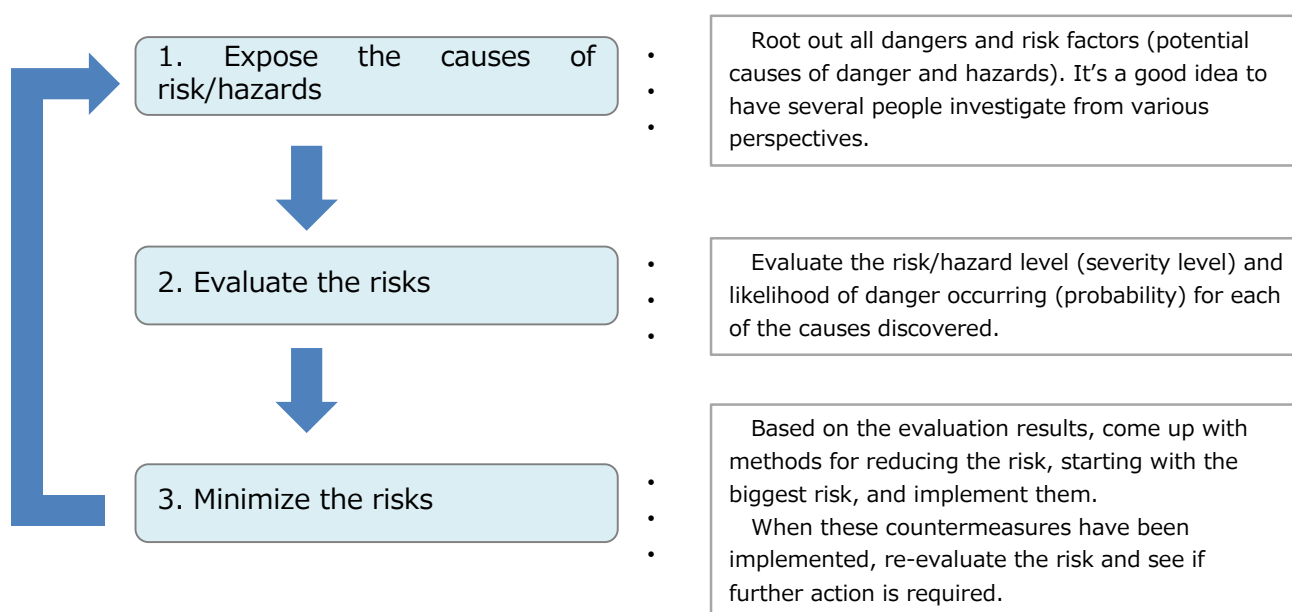
- ① When deciding to use new equipment or materials or replacing old ones, etc., **this is an effective method for systematically revealing risks hidden in the workplace.**
- ② In addition, because **potential risks are evaluated and ranked by priority**, this allows management resources to be diverted toward the biggest issues, thus making the process more effective.
- ③ **To minimize risk**, it is essential to **proactively** consider changes in work methods, interlocking (safety devices, safety mechanisms) installations, and other **equipment-related countermeasures.**

Furthermore, risk assessment can be performed on the basis of near-miss reports and the operation manual, so it is an effective method for ensuring that new employees practice safe work procedures.

Risk assessment resources and training materials are available on the Ministry of Health, Labour, and Welfare website. Please make use of them as necessary.

(⇒ <http://www.mhlw.go.jp/bunya/roudoukijun/anzeneisei14/index.html>)

### Risk Assessment Implementation and Considerations



---

## Important points of detecting hazardous cause

Basic ideas of hazard detection is similar to the one in the safety patrol and Kiken-Yochi (hazard prediction) training

Check each category of worker (operation and move) / object (facilities and utility) / environment

Pick up every points including the one with small possibility or low impact.

Check normal operations as well as temporally ones

You can check materials and references related to risk assessment on the website of the Ministry of Health, Labour and Welfare.

⇒ <http://www.mhlw.go.jp/bunya/roudoukijun/anzeneisei14/index.html>



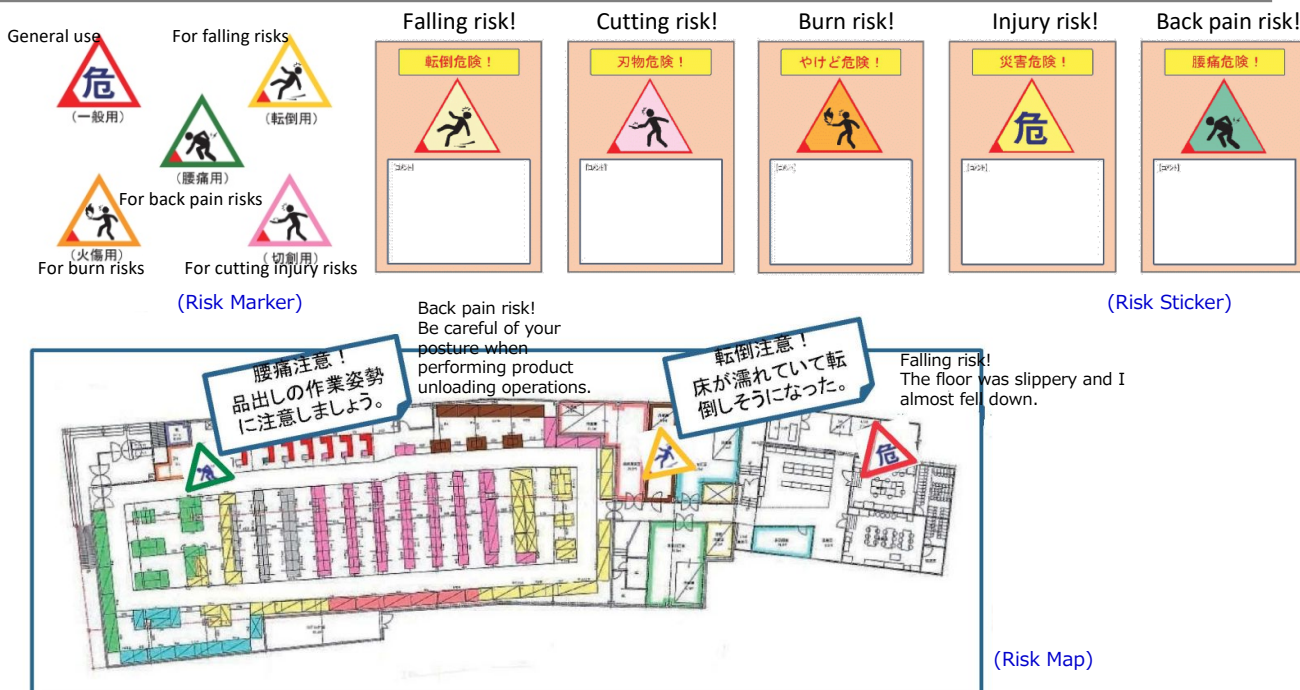
## (7) Visualization (Mieru-ka) of Risks

- ◆ Visualization of Risks is the process of visualizing the hidden dangers in the workplace and the things to focus on to ensure safety. For this, each workplace are making efforts to implement effective risk visuals the workplace.
- ◆ Visualization of Risks is the easiest way to inform and let operators understand and recognize the risk and call their attention during operations. The ability for inexperienced workers to participate easily also contributes to making it an effective tool for ensuring safety.
- ◆ When conducting Visualization of Risks, it is important to teach operators why some actions are dangerous and how they can maintain safety.

### A. Applications of risk visualization

- ◆ Risk maps, risk markers, and risk stickers indicate dangerous areas, and the Ministry of Health, Labour and Welfare has provided instructions for their use. The website below is provided for reference.

(Risk visualization in retail) → <http://www.mhlw.go.jp/stf/seisakunitsuite/bunya/0000058407.html>



- **Risk maps** are floor maps or other diagrams of the workplace that indicate dangerous areas where workplace accidents could occur, calling these areas to operators' attention.
- **Risk markers** are notes affixed to the dangerous areas on the maps with comments about important compliance rules for the applicable areas.
- **Risk stickers** are stickers applied to the dangerous areas on maps to indicate warnings about the content of the danger. Content such as the type of danger, things to be careful of related to it, and what to do to preserve safety should be written in the open space.

\*Markers and stickers can be acquired from the Japan Association of Safety and Health Consultants website.

→ <http://www.jashcon.or.jp/contents/>

## I Danger Visualization Examples

Making the potential dangers in the workplace visible is extremely beneficial, and it is for this reason that various steps are taken at each workplace to increase the visualization of risks.

Here, we will share examples published by the Ministry of Health, Labour, and Welfare (including the Prefectural labour Bureaus) as well as examples from the workplaces that collaborated in the creation of this manual (\*Content without any particular attributions are from these workplaces).

Please use these examples as reference to improve danger visualization at your workplace.

- ◆ The Ministry of Health, Labour, and Welfare, in order to stimulate efforts to implement the safety practice of visualization at workplaces, holds a contest to gather examples of the efforts currently being made at various workplaces and selects best entries.
- ◆ The best examples are presented every fiscal year, and the Prefecture Labour Bureaus present their own model examples of visualization as well.

The examples of visualization selected by the Ministry of Health, Labour, and Welfare can be seen at the link below:

- FY 2014 Model Examples

- <http://anzeninfo.mhlw.go.jp/anzenproject/concour/2014/result.html>

- \* The winners from FY 2011 – FY 2013 are listed as well.

### [Visualization Example 1]



Because all employees wear the same garments and caps when working with food, it is difficult to tell people apart.

By attaching identifying colors to employees' cheek areas—red for newcomers (working less than three months) and blue for the leader—employees were able to be identified at a glance.

This particular method was implemented at a food preparation workplace, but it can be applied to other workplaces as well.

### [Visualization Example 2]



In order to prevent employees' fingers from getting caught in stepladders, a warning sign was put up near the stepladder.

Materials: "Safety Visualization" example compilation (Osaka labour Bureau)

[Visualization Example 3]



The outside can be seen from beyond the door and the entrance and exit are clearly marked.

[Visualization Example 4]



Paths are clearly marked in the work area, keeping the surroundings tidy.

[Visualization Example 5]



A danger sign near the slicer

Caution!



[Visualization Example 6]



The company created its own "health and safety week" and an accompanying poster.

[Visualization Example 7]



Image displayed that shows tool placement to make organization easy.

Materials: "Safety visualization" examples from interviewed workplaces



[Visualization Example 8]



A line indicating the maximum height was posted, making it easy to ensure that carts were loaded to the appropriate height. The storage area is indicated by lines, making it easy to keep everything organized.

[Visualization Example 9]



Up and down arrows are displayed on the stairwell, making traffic safe. (Ideally, there should be a handrail on the side of the wall as well.)

[Visualization Example 10]



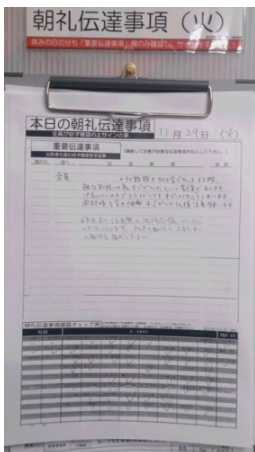
A sign reminding employees to use puncture-resistant work gloves helps to protect their hands from cuts.

[Visualization Example 11]



A sign reminding employees of the date of a burn accident serves as a strong reminder to be careful.

[Visualization Example 12]



A notice is posted to share information with employees who couldn't make it to the morning meeting.

[Visualization Example 13]



A poster warning against dangerous use is posted to encourage safe stepladder use.

Materials: "Safety visualization" examples from interviewed workplaces

## 4. Teaching the fundamentals for accident prevention (Part 2)

---

~ Carry out safe operations to improve workplace safety

The following types of workplace accidents are common in commerce, so preventive measures should be taught thoroughly.

- |                                |                        |
|--------------------------------|------------------------|
| [1] Falls                      | [2] Back pain injuries |
| [3] Falls from height          | [4] Cuts and scratches |
| [5] Getting caught or drawn in | [6] Heat stroke        |

### (1) Points for preventing falls

- Always maintain 4S (Seiri / Sorting, Seiton / Setting-in-Order, Seisou / Shining, Seiketsu / Standardizing) on the floor!

Especially when handling food products, if oils or water spill on the floor, this increases the risk for stumbling and falling accidents. Seisou / Shining must be performed frequently.

Also, during operations or movement, if unnecessary objects are present in your path, there is a risk of stumbling and falling.



- Use a cart to transport large and heavy objects!

If you carry large or heavy objects by hand, you cannot see your feet as you walk, which makes maintaining balance difficult, increasing the risk of stumbles and falls.

- Stumbling and falling are major risks when carrying objects!

Carrying objects by hand increases the risk of stumbling and falling. Avoid carrying objects by hand whenever possible.

- Ensure walkway lighting is sufficiently bright!

When your feet are difficult to see, this increases the risk of stumbling and falls. Ensure that there are no dark work areas or passages used for transport.

In order to prevent falling accidents, ensuring operators are thorough in their implementation of measures to prevent slipping and stumbling is essential. In addition, being aware of the risks of carrying objects by hand and the importance of keeping a slow and steady pace are also important.

There are other cases where visualization drives operators to be more attentive as well.

The Ministry of Health, Labour and Welfare is promoting a "Falling Accident Prevention Project" to prevent the most common type of workplace accidents. The main policy points are on the next page.

Ministry of Health, Labour, and Welfare "Fall Prevention Project"

<Choosing Shoes that Prevent Falls>

Size

If your shoes are too small or too large, you won't have firm footing and it will be easy to lose your balance.

Flexibility

If your shoes aren't flexible, you're likely to shuffle your feet, causing you to trip.

Weight

Heavy shoes make it difficult to lift your feet, causing you to trip.

Weight balance (front and back)

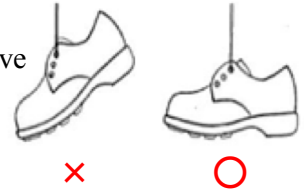
If there's too much weight at the toe of the shoe, the toe will drop when you walk, causing you to trip.

Toe height

If the toe of your shoe is low, this could cause tripping over even on slightly elevated surfaces.

Anti-skid balance of shoe soles and floor

It is important that the traction of your soles matches the work area and the content of your work. For example, wearing non-slip shoes on a non-slip floor could cause a trip accident.



MINISTRY OF HEALTH, LABOUR, and Welfare Website  
<http://www.mhlw.go.jp/file/06-Seisakujouhou-11300000-Roudoukijunkyokuanzenzeis-eibu/0000111161.pdf>

Fall Prevention Checklist		<input checked="" type="checkbox"/>
1	Are there any obstacles in pathways, on stairs, or near exits and entrances?	<input type="checkbox"/>
2	Has any water, ice, oil, powder, etc., on the floor been cleaned up as needed?	<input type="checkbox"/>
3	Is the lighting sufficient to allow for safe movement?	<input type="checkbox"/>
4	Has training been implemented to prevent falls?	<input type="checkbox"/>
5	Do work shoes have the appropriate amount of traction for the work area, and are they of the appropriate size?	<input type="checkbox"/>
6	Has near-miss information been utilized to identify areas prone to fall accidents, and have employees been made aware of them?	<input type="checkbox"/>
7	Have signs been posted near uneven surfaces and slippery areas to encourage safety?	<input type="checkbox"/>
8	Has the practice of walking with one's hands in one's pockets been forbidden?	<input type="checkbox"/>
9	Have stretching and other forms of fall prevention exercise been implemented?	<input type="checkbox"/>

How were the results? If you improve on the problem areas, your work efficiency is sure to increase, and your workplace will become more worker-friendly as well. Consult with the safety committee to come up with best approaches in order to make improvements!

## (2) Points for preventing back pain injuries

### ■ Avoid handling heavy objects by hand!

To avoid putting unnecessary strain on your lower back, transport heavy objects using machines (forklift, etc.) or tools (cage cars, carts, etc.) whenever possible.



### ■ Handle heavy objects correctly!

- Get as close as possible to the heavy object and maintain a low center of gravity.
- When lifting heavy objects from the floor, move one leg slightly forward and bend at the knee, bend at the waist and wrap your arms around the object, and lift it up by straightening your leg.
- When lifting heavy objects, take a deep breath and brace your abdominal muscles.
- When moving large or heavy objects, keep distances short and refrain from carrying these objects up or down stairs.

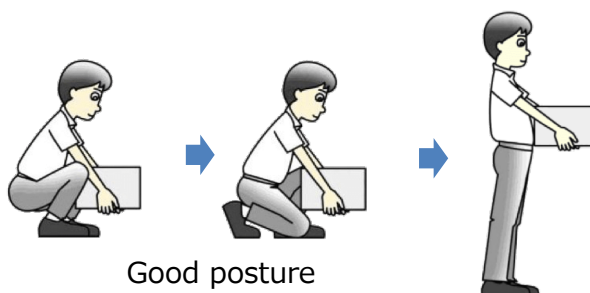
### ■ Perform stretching for back pain prevention

Before starting work and whenever handling heavy objects, perform stretching in advance to prepare.

(References)

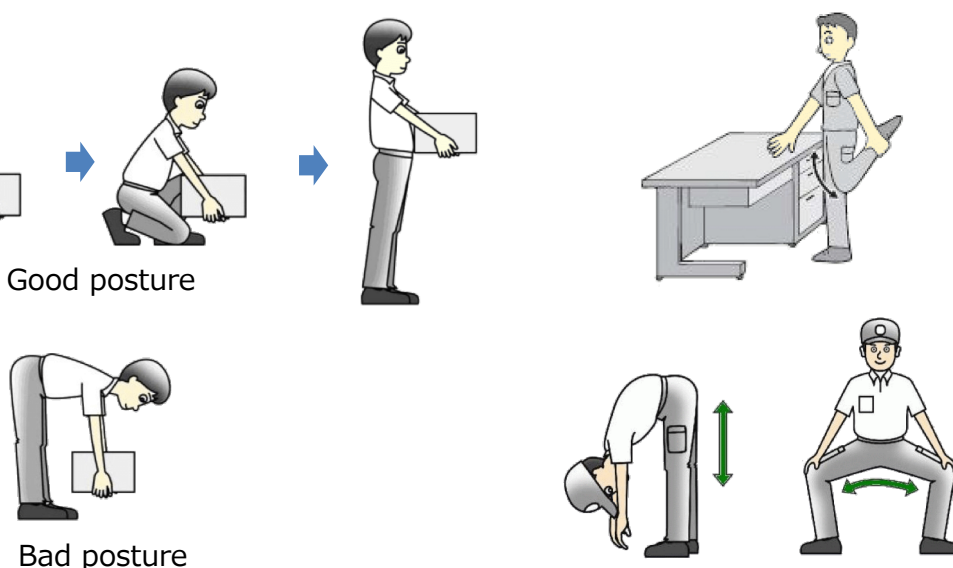
- Ministry of Health, Labour and Welfare information report "Conducting initiatives to prevent back injuries in the workplace!" (back pain prevention guidelines)  
<http://www.mhlw.go.jp/stf/houdou/youtsuushishin.html>
- Ministry of Health, Labour and Welfare leaflet "Prevent back pain in the workplace!"  
<http://www.mhlw.go.jp/new-info/kobetu/roudou/gyousei/anzen/dl/131114-01.pdf>

#### <Handling heavy objects>



Good posture

#### <Stretching>



Bad posture

### (3) Points for preventing falls from height

#### ■ Use stepladders properly!

Operators often fall from unsteady stepladders when using stepladders or stools to take products down from the storehouse shelves.

Use the stopper latch and work as a pair if you're using both hands to carry the products.

#### ■ Always walk slowly and grip the handrails when going up and down stairs!

Carrying items or looking at your smartphone while going up or down the stairs drastically increases the risk of falling.

Make going up and down stairs safely a habit.

#### ■ Keep away from the edges when working on platforms or passing through walkways!

There have been cases of collapsing from the edges when using cage cars for transport. Stay away from the edges as much as possible. Also, there have been cases where operators tried to support cage cars that were overturning when unloading products from platforms or trucks and getting pinned underneath them as a result. Refrain from trying to hold up the cage car and flee to a safe distance.



Crashing and falling accidents happen relatively frequent. Also, serious injuries can occur even when falls are not from significant heights, so maintaining safety is especially important.

#### 1. Using stepladders safely

Stepladders are used often, and tend to be taken for granted, but workplace accidents occur relatively frequent with this tool.

First, consider the following.

[1] Is there a way to avoid using the stepladder?

[2] Can you use a portable workbench or stepladder with handrails instead?

If these options are impossible, follow the following safety guideline

#### [Points for stepladder safety]

[1] Do not use the final step (top).

[2] Always set the stopper latch.

[3] Do not use stepladders in areas with uneven surfaces or in unstable areas.

[4] Do not step down while carrying something.

#### stepladder with handrails (the example)



#### portable workbench (the example)





(Ordinance on Industrial Safety and Health, Article 528)

The employer shall not use a stepladder unless otherwise prescribed as follows:

- 1 To be of sound structure.
- 2 To be made of materials without marked damage, corrosion, etc.
- 3 To have the angle between the leg and the floor is set to less than 75 degrees, and for folding stepladders, to be equipped with fittings, etc., and attach metal fittings to keep the angle between the leg and the floor secure.
- 4 The surface area of the steps should be sufficient for safe operation.



### 3 Walk up and down the stairs safely

Some workers go up and down the stairs while looking at their smart phones.

It is not safe, and it is necessary to raise awareness including visualization of risks in the workplace.

Some workplaces forbid the use of smart phones while working in a store, on the stairs or on an elevator.



Example sign on stairs

### 4 Falls during cargo container operation

When a cargo container (roll box pallet) falls from the edge of a platform or from the tail gate lifter, **don't try to hold it, instead, run away from it**. In many cases, workers try to hold it and then get injured. A cart weighs much, and a worker can't hold it.

It is the same when a cargo container falls down on the floor.



#### (4) Points for preventing cuts and scratches

- Pay attention when cleaning a blade or a cutter of process machines!

When a worker was cleaning the blade of machine while the machine is still moving, thinking it will be easier that way, it resulted in a severe accident of caught by rolling blades and cutters.



- Prevent sudden start of the machine while an operation is ongoing while the machine switched off!

In some case, a worker turned off the machine and was cleaning and arranging the blade part of a machine. However, another worker was not aware of his operation and turned on the machine by mistake. This resulted in a accident with the worker being caught by the machine.

- Put a knife in safe manner and on a safe area!

A worker in a kitchen may touch a knife then get cut, or a knife might fall and it cuts a worker on his leg.

Many machines and facilities with blades and cutters are used in a workplace. It is important to prepare an operation manual for each machine and to let employees get accustomed to it through safety and health instructions and training.

Let's prepare operation manuals for each workplace using the actual "proper use" examples shown in page 60 onwards.

**[Ordinance on Industrial Safety and Health]**

(Stoppage of Operation etc., in the Case of Cleaning, etc.)

Article 107

- 1 The employer shall, in the case when work such as cleaning, lubricating, inspecting or repairing the machine (excluding blade parts) is being carried out, and when it is liable to endanger workers, stop the operation of the machine. However, this shall not apply to cases when the work must be carried out while operating the machine, and when taking the measures of providing a cover on dangerous part, etc.
- 2 The employer shall, when the operation of the machine is stopped due to the pursuant to the provision of the preceding paragraph, take measures such as locking the starting device of the said machine, attaching warning signs, etc., to prevent another worker from operating the said machine.

(Stoppage of Operation etc., in the Case of Cleaning, etc. of Blade Parts, etc.)

Article 108

- 1 The employer shall, when carrying out work such as cleaning, inspecting, repairing, replacing, or adjusting of blade parts of a machine, stop the operation of the machine. However, this shall not apply if doing so will unlikely to endanger workers due to the structure of the machine.
- 2 The employer shall, when the operation of the machine is stopped due to the pursuant to the provision of the preceding paragraph, take measures such as locking the starting device of the said machine, attaching warning signs, etc., to prevent another worker from operating the said machine.
- 3 The employer shall, when removing chips or using cutting lubricants for the blade part of a machine during operation, instruct the worker to use a brush or other appropriate tools.
- 4 A worker shall, when instructed to use a tool mentioned in the preceding paragraph, use it.

## (5) Points for preventing getting caught or drawn in the machine

### ■ Always turn off machines before cleaning and repairing operations!

If you try to carry out cleaning operations while the machine is still running to save time, there is a risk of getting caught in the machine, while there are cases it resulted in severe injuries.

Make it a habit to always turn machines off before conducting cleaning and repairing operations.



### ■ Prevent unexpected start of machine when conducting operations while the machines is switched off!

Turn off the startup switch of the machines during cleaning and calibration.

There have been cases when other operators not noticing that these operations are being conducted, turned on the start switch, resulting in an accident involving the operator conducting the operations getting trapped or caught in the machine.

As you turn off the switch of the machine, place a warning board that says "Ongoing cleaning of the blades, do not turn on the machine!".

### ■ Use protective enclosures and protective equipment in a way that maintains their functionality!

There have been cases when operators removed protective enclosures to improve working efficiency then got caught in the machine.

If supervisors notice operators remove protective enclosures or covers, always instruct them to return it back to its proper position.

1. Inexperienced operators can suffer severe injuries from accidents where they get caught or trapped in the machine. Operators conducting cleaning operations while the machine is still running to make the work easier causes an especially large number of accidents. Getting caught in machines has a high probability of causing severe injuries such the loss of hands or arms and death. Ensure that machines are always switched off during cleaning operations.

The law also specifies that machines must be switched off during "cleaning, refueling, inspection, repair, and adjustment operations."

2. Even if operators switched off the power of the machine when conducting these operations, another operator may switched them back on without knowing in such operation is ongoing. Measures must be taken to make sure that other operators do not switch on the said machine.

The law also specifies the following when machines are stopped. "Machine startup devices should be locked or have warning boards attached to it, etc."

3. To avoid accidents involving getting caught in machines, educate operators to ensure that safety devices, enclosures and covers are used properly and their functionality is maintained.

4. Because accidents occur often with food processing machinery, requirements for ensuring safety are defined in labour Safety and Health Regulations from Article 130 clause 2 to Article 139 clause 9. An overview of these requirements is provided on the next page for your reference.

## labour Safety and Health Regulations, etc.

1. For food processing machinery, the labour Safety and Health Regulations require businesses to install the following devices.

(1) Preventing risks of cutting and slicing accidents when using food processing machines for cutting and slicing.

[1] Install covers in all dangerous areas except for those which must be kept open for cutting

[2] Use tools or other means to stop the machine's operation when inserting or removing raw materials

(2) Preventing risks of falling and getting caught in food processing pulverizing machines and mixers

[1] If there is a risk of falling into the opening, install a lid or other preventive measures

[2] Use tools or other means to stop the machine's operation when inserting or removing raw materials

(3) Preventing risks of getting caught in food processing rolling machines

Install covers in the dangerous areas of the machine

(4) Preventing the risk of getting caught or trapped in food processing molding machines

If there is a risk of getting caught or trapped in these machines, install covers or other safety measures

2. When making adjustments to the clogged machinery, as a general rule, safety measures such as turning off the machine first are required.

Machinery should be turned off during cleaning, refueling, inspection, repair, and adjustment operations, and during other operations that require risk prevention. This applies to blade cleaning as well.



Slicing and cutting machines (example: chop cutter)



Mixing machines (example: blender)

## (6) Points for preventing heat stroke

### Points for preventing heat stroke

#### ■ Be careful of heat stroke in hot and humid working environments!

Heat stroke is caused by imbalances of water and salt content in the body, which occurs gradually when you spend long periods of time in hot and humid environments. Your body's regulating functions are unable to keep up with demand, and the temperature inside your body rises. This condition occurs both outdoors and indoors, and can result in emergency treatment and even in death in severe cases.

\*Measure the correct heat index (WBGT value) using a heat index meter with a black sphere.



#### ■ Take the necessary measures if you experience heat stroke symptoms such as feeling dizzy or nauseous!

[1] Move to a cooler area

- • • Evacuate to a cooler area such as a place with air conditioning or a shaded and well ventilated space

[2] Cool down your body

- • • Loosen clothing and cool down the body (especially the neck, sides, and bottoms of the feet)

[3] Hydrate

- • • Hydrate with water and salt or an oral rehydration solution\*

\*Dissolve salt and glucose in the water

**If the affected operator is unable to drink on his own or is unconscious, call an ambulance immediately!**

#### ■ Prevent heat stroke by taking in sufficient water and salt!

[1] Provide downtime and breaks from operations, and keep continuous working times shorter

[2] Regardless of whether operators are aware of any symptoms, always take in water and salt before and after operations, as well as regular intervals during operations

[3] Drink appropriate amounts of a sports drink or oral rehydration solution

[4] Factors such as sleep deprivation, poor condition, and skipping breakfast can affect the onset of heat stroke

Learn the truth about heat stroke, pay attention to change in physical condition, and refrain from trying to tough it out when symptoms appear. Instead, immediately notify those nearby and receive treatment or call an ambulance if necessary. If you take a break by yourself, your symptoms could worsen, making you no longer able to call out for help.

Also pay attention to those around you and tell someone right away if you think another operator is exhibiting signs of heat stroke.

#### [Heat stroke symptoms]

Dizziness, lightheadedness, numbness in the hands and feet, muscle cramps, feeling sick

Headaches, nausea, vomiting, fatigue, lethargy

#### In serious cases

Strange responses, loss of consciousness, seizures, body is hot to the touch

Take in water, salt, and oral hydration solutions regularly whether working outside or inside, regardless of whether you feel thirsty.

## 5. Teaching the fundamentals for accident prevention (Part 3)

~ Teach the right actions to take during occurrence of accidents or abnormal situations

### (1) Handling abnormal situations

#### (1) Measures to take when you notice abnormal situations

- [1] If you notice an abnormal situation, confirm what is happening first.
- [2] Inform a nearby workplace supervisor or coworker in a loud voice.
- [3] Press the emergency stop button if necessary. Teach operators the situations when they should use the emergency stop button on machinery. Also implement actual use of the emergency stop button in the training.
- [4] Cooperate with coworkers and take the appropriate measures based on the supervisor's instructions. Do not act on your own without authorization.
- [5] When the abnormal situation is resolved, the supervisor will draft a report summarizing the conditions when it occurred.

#### (2) Evacuation and disaster prevention training

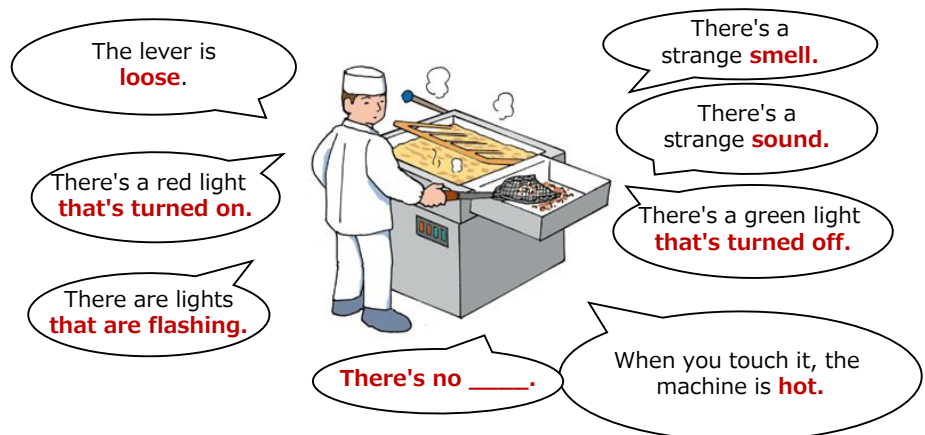
- [1] In cases of explosion or fire, inform nearby operators while evacuating to a safer place. Ensuring emergency lighting on the evacuation routes and exit areas in the case of power outages is critical.
- [2] Always participate in disaster prevention training, and receive guidance for experts related to evacuation methods and handling abnormal situations.

#### [Notify!]

If the condition of a machine is different from normal, notify your leader and other operators in the surrounding area immediately!

#### [Notify!]

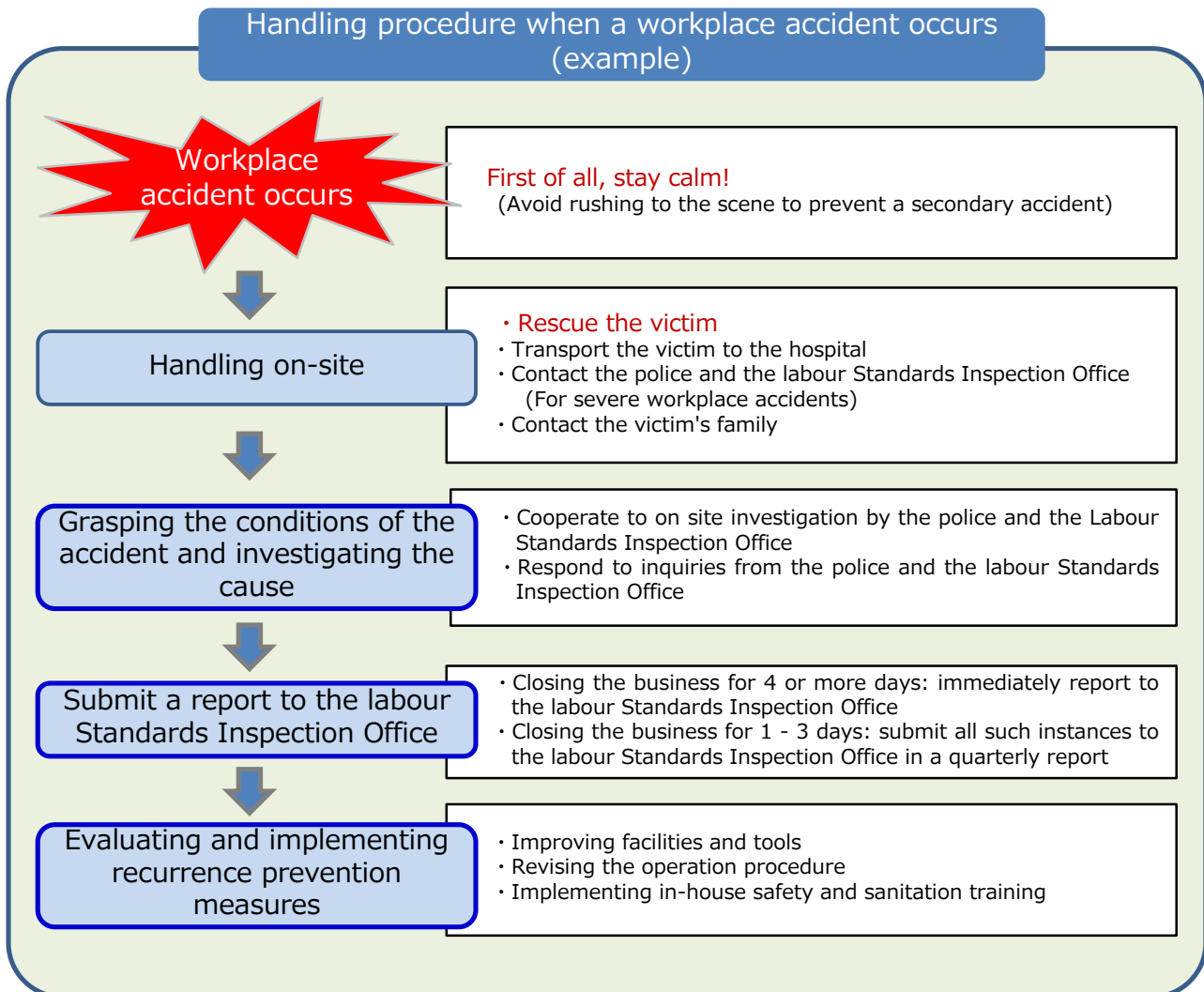
If the condition of a machine is different from normal, notify your leader and other operators in the surrounding area immediately!



## (2) Handling occupational accidents (management)

Although the company is proactively implementing safety and sanitation management and safety and sanitation promotion activities, it is impossible to completely eliminate the risk of workplace accidents.

Should a workplace accident occur in your operation space, follow the handling procedure below.



Also, in preparation for possible accidents, carry out the following in advance.

- (Confirmation of) the location of first aid and nursing facilities and tools
- Contact information and handling supervisor for the fire department, emergency vehicles, the police, and the labour Standards Inspection Office
- Contact information for operators' families, methods for submitting reports to the labour Standards Inspection Office and applying for workers' compensation insurance benefits, etc.
  - \*Ministry of Health, Labour and Welfare: When an occupational accident occurs  
<http://www.mhlw.go.jp/bunya/roudoukijun/rousai/index.html>
  - \*Ministry of Health, Labour and Welfare: Workers' compensation  
<http://www.mhlw.go.jp/bunya/roudoukijun/rousai.html>
- Other proprietary reporting methods or formats used by the company



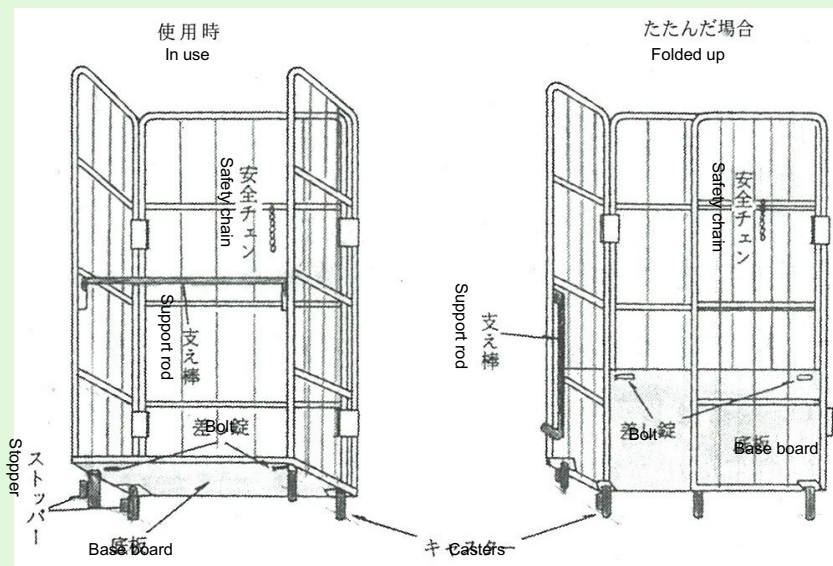
## 1 Safe operation examples

This part introduces examples of manuals drafted in actual workplaces. Use these examples to ensure safe operations at your workplace.

### Example (1) Proper handling of tools

In order to ensure safe operations, it is important that each operator strictly follows the regulations and is able to concentrate during their work. Failure to comply with the regulations or concentrate on the task at hand causes accidents. Be especially careful of the following and strive for safety in all operations.

#### I. Cargo container



##### 1. Assembly methods

- 1) Remove the chain and open the part into a C shape.
- 2) Release the bolt, lower the base board, and re-insert the bolt.
- 3) After loading is completed, always insert a support rod.
- 4) Release the stopper when moving.

##### 2. Always pull loaded cargo containers when moving them.

\*If these containers are pushed and when it's impossible to see in front of you, this can cause accidents as a result of bumping into customers and other people, so please be careful.

##### 3. When entering and exiting swinging door areas, confirm safety on the other side of the door and pass through slowly.

##### 4. Folding method

- 1) Remove the support rod.
- 2) Release the bolt, raise the base board, and re-insert the bolt.
- 3) When using two-tier models, remove the clasps on the right and left side of the upper shelves, then lower them. Next, raise the base board and insert the bolt.
- 4) Fold over the right side to form the shape of an L.
- 5) Finally, always use the safety chain.

##### 5. When carrying out empty cargo containers, avoid gripping the thick pipe on the ends, and instead grip the thin pipe inside the body, taking special care to avoid falling during movement.

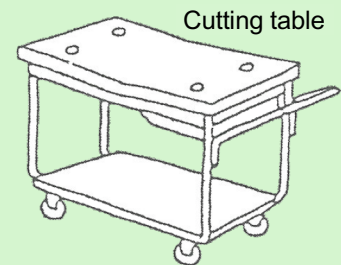
\*Gripping the thick pipe on the ends can cause operators' hands to catch on swinging doors or walls.

##### 6. Put folded cargo containers away in their designated locations and fix a stopper in place to ensure there is no movement.



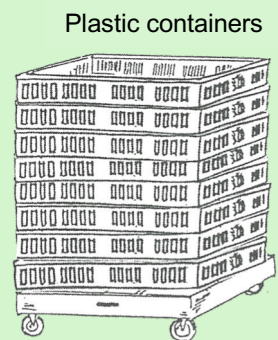
## II. Cutting table

1. Because the casters (wheels) rotate freely, care must be taken to ensure that products do not bump into customers during movement.
2. Large heavy items should be placed underneath, and small and light items should be placed on top. Also take care to ensure that loads are evenly distributed.
  - \*If heavy objects are placed on top, the containers can become unbalanced, and there is a risk of them falling over.
3. Do not pile products higher than your line of sight.



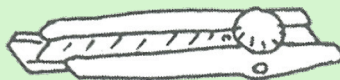
## III. Plastic containers

1. Always pull loaded plastic containers when moving them.
2. Empty plastic containers must be stacked as follows. Light blue containers: up to 22, yellow containers: up to 16, white containers: up to 30. Never stack these containers any higher than these limits.
  - \*The stacking limitations are to ensure the stacks are not too high to pass through swinging doors.
3. Store empty plastic containers in their designated spaces and fix a stopper in place to ensure there is no movement.

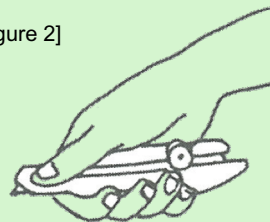


## IV. Cutters

[Figure 1]

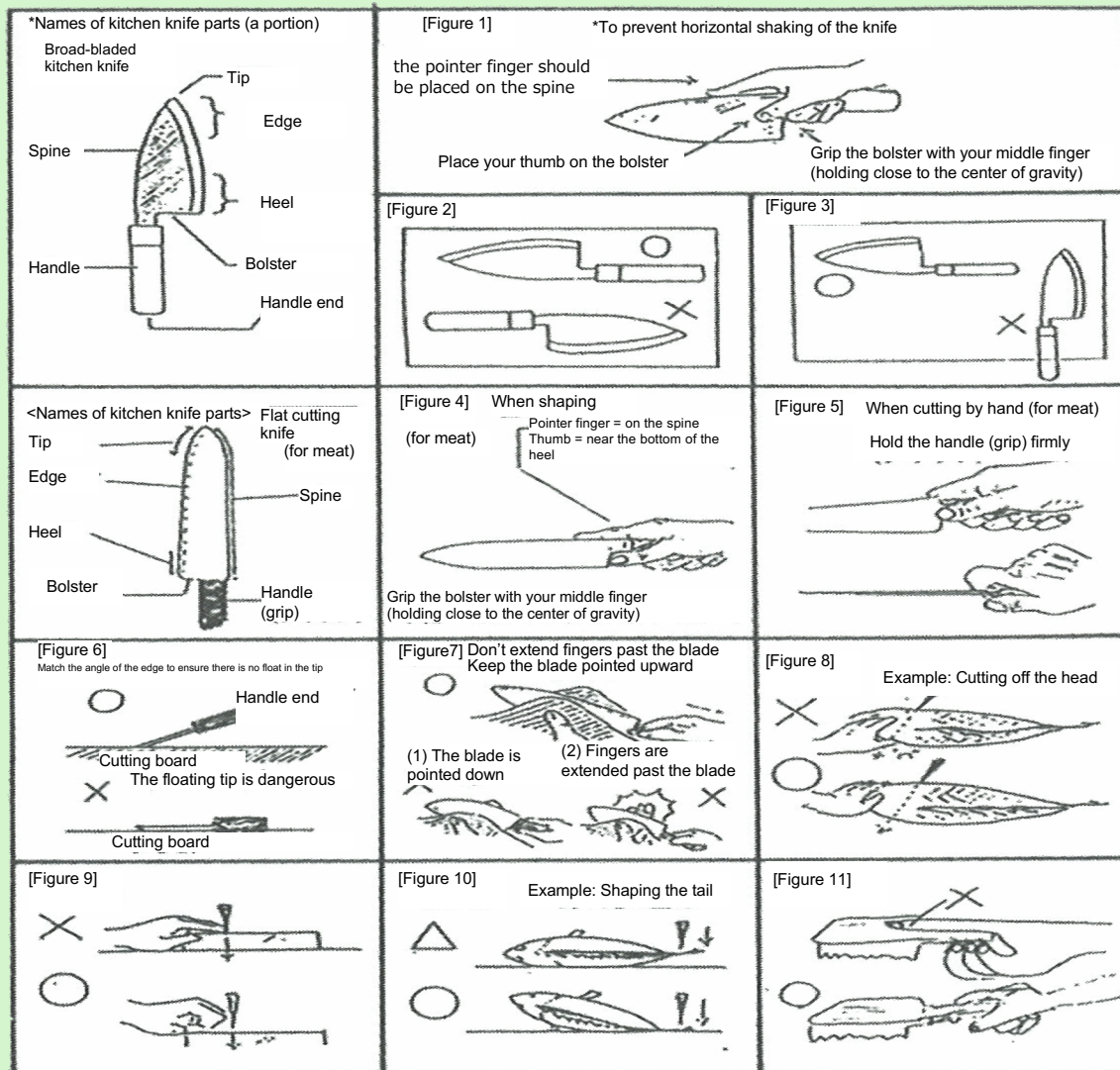


[Figure 2]



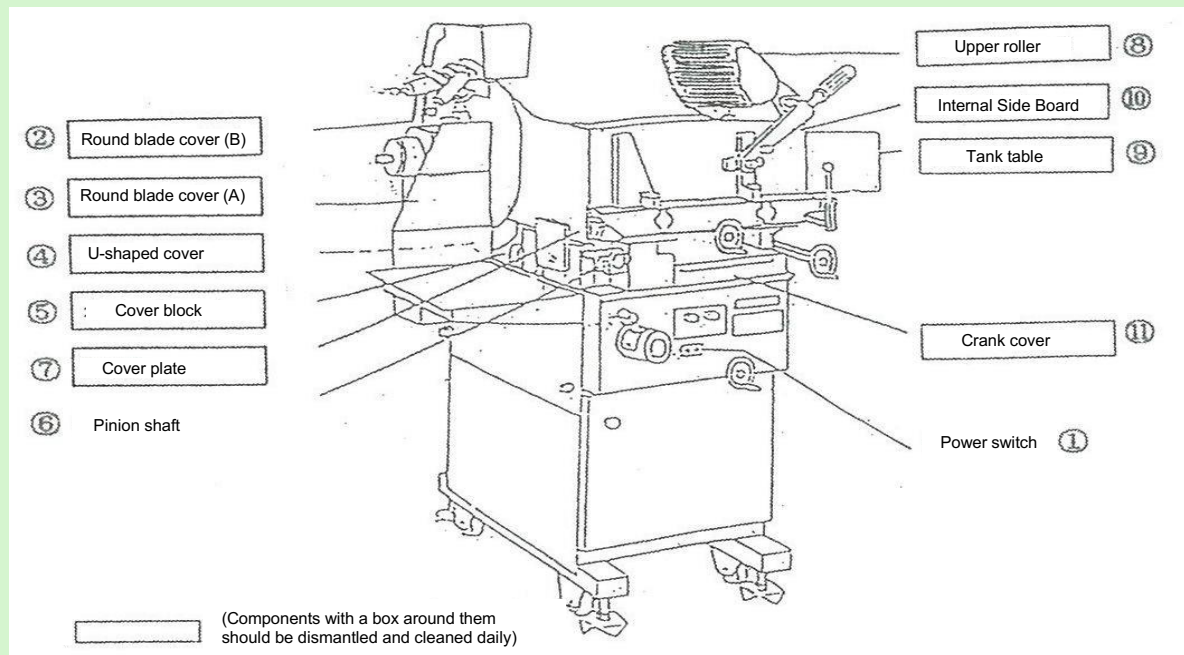
1. For safety reasons, cutters with blades that can be locked in position should be used. [Figure 1]
2. When using these tools for cutting, refrain from extending the blade any further than necessary, keeping the portion sticking out to around 3 mm.
  - \*Extending the blade further than necessary can cause injuries.
3. Touch the tip of the blade to the cardboard and pull the cutter toward you while pushing down with your thumb to hold the cardboard in place, moving in parallel lines.
4. Grip the cutter as shown in [Figure 2].
5. If the cutting edge has gotten dull, line up one segment of the blade with the line, turn the cutter over, and carefully break off the segment, supporting with your thumb to ensure it doesn't go flying off.
  - \*If the blade is rusted or chipped and doesn't cut well, applying extra force during use can be dangerous.
6. Either put the removed blade segment in the replacement blade case or throw it away after wrapping it in cellophane tape for safety.
7. When exchanging the entire blade, remove the old blade first before inserting the new one.
  - After removing the old blade, wrap it in cellophane tape and then either store it in the replacement blade case or throw it away.

## V. Kitchen knives



1. When holding kitchen knives, the pointer finger should be placed on the spine while gripping the bolster of the blade with your middle finger and thumb on the opposite side to prevent horizontal shaking. [Figure 1, Figure 4]
2. When cutting meat by hand, maintain a firm grip on the handle. [Figure 5]
3. When putting down kitchen knives, place the blade facing away from you, and make sure the handle does not extend past the edge of the cutting board. [Figure 2, Figure 3]
4. When washing kitchen knives, hold the blade firmly in place on a cutting board while washing. [Figure 6]
5. When wiping off kitchen knives, avoid extending your fingers past the edge of the blade. [Figure 7]
6. Wipe down the handles of kitchen knives well to keep them clean and prevent slippage.
7. During processing, move your hands in parallel to the knife to ensure that your left hand never overlaps with the knife's cutting movement. [Figure 8]
8. When cutting sashimi and other materials by hand, be careful not to extend the fingers of your left hand. [Figure 9]
9. When cutting with a chopping motion, keep the material to be cut pressed firmly against the cutting board and cut with the heel of the knife. [Figure 10]
10. When processing frozen fish, use working gloves or cloth and be careful to keep your hands from slipping.
11. When you are finished using a kitchen knife, return it to the knife block immediately.
12. When descaling fish, grip the fins to keep them from stabbing into your fingers. [Figure 11]
13. When breaking down fish, always wipe them down from head to tail to prevent fins from stabbing into your fingers.

## VI. Meat slicers



### 1. Points to remember during processing

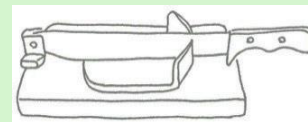
- 1) Confirm that the power is turned on.
- 2) Confirm that the continuous switch for the round blade is on.
- 3) Be careful of the gap between the round blade and the cover plate.

### 2. Points to remember during cleaning

- 1) Confirm the power is turned off. (Confirm that the power source is in the off position.)
- 2) Dismantle the slicer in the proper order. [Reference diagram]
- 3) Soak the components in hot water for a sufficient time.
- 4) Always wipe down the round blade starting from the center and moving outward.
- 5) Use cooking chopsticks or disposable chopsticks to clean the areas around the round blade and small parts, and never put your fingers inside under any circumstances.
- 6) Be careful not to slip when carrying heavy components.
- 7) After completing assembly, check to make sure the screws and other components are set properly one more time.

(Note) Operations differ depending on the machine model used, so follow the operating procedure provided in the user's manual.

## VII. Pumpkin cutter



1. Set the pumpkin cutter in a flat and stable position.
2. Making sure the blade does not touch your hand supporting the pumpkin, first bring the blade into contact with it, then slowly lower the blade. \*Be especially careful when carrying out initial cuts.
3. When moving the pumpkin cutter, fix the blade in place to ensure it does not move prior to moving the unit.
4. When cleaning, first lower the blade and fix it in place.
5. To clean the blade, hold a cloth over the spine extending down toward the blade and wipe in a single direction, being careful not to cut your fingers.
6. If the unit is stored in a high place, there is a risk of it falling and causing injury, so it should be stored in a stable place lower than the working table. \*Always perform operations cleanly and maintain cleanliness.

## Example (2) Compliance points for safety

Comply with the following rules to prevent workplace accidents.

### (1) Cutting, rubbing, squashing, and scraping accidents

- i. Whenever handling dangerous machinery and tools such as kitchen knives, cutters, slicers, meat grinders, fryers, molders, and ovens, always confirm safety and handle the equipment carefully.
- ii. Never modify or remove machine switches, levels, slicers covers, and other safety devices without permission.
- iii. Be especially careful to never reach out toward or touch machinery when it is running.
- iv. When conducting cleaning inspections, and repairs for foodstuff machinery such as slicers and meat grinders, make sure the machinery is completely turned off first.
- v. Sharpen kitchen knives well and maintain good posture during use.
- vi. Return blade equipment such as kitchen knives to their prescribed storage locations immediately after use.
- vii. Avoid placing your hands on the door frame when closing doors to ensure your fingers do not get caught in the door.



### (2) Accidents caused by collapsing or falling materials

- i. When storing items such as products, utensils, furnishings, and cart racks, store these materials carefully to ensure they do not collapse or fall.
- ii. When taking materials down from high places or replacing fluorescent lights, ensure stools and stepladders are placed securely. Never stand on cutting tables or cart racks for these operations.

### (3) Slipping, stumbling, and falling accidents

- i. If leaves, meat scraps, water, or other slippery materials fall into the path in the working area, immediately remove them and wipe the area clean.
- ii. Never read documents or let your eyes wander when walking on stairways and in other areas with steps.

### (4) Back injury accidents

- i. Always keep objects as close to your body as possible when lifting them.
- ii. When lifting heavy objects, squat down sufficiently and lift from the legs. Also, heavy objects should be lifted by two or more employees.



### (5) Other accidents

- i. Always make sure to carry out inspections of various machinery, utensils, and other equipment prior to use as well as inspections and adjustments after use.
- ii. Always wear safety equipment such as safety gloves.
- iii. Operating automobiles, handling dangerous equipment such as boilers, carrying out electrical work, and other operations which require licenses or qualifications must only be performed by staff who have the applicable licenses or qualifications.
- iv. Only qualified personnel may enter restricted areas such as boiler rooms and electrical rooms.

### Example (3) Cautionary points for safe operations

The following are cautionary points for safe operations related to the use of machinery, utensils, and other equipment.

#### (1) Knives

1. Knives should always be sharp enough to cut cleanly. (Dull knives are dangerous because operators must use additional force to cut with them.)
2. Whenever putting down a knife, place it close to the back edge of the cutting board with the blade facing away.
3. After using a knife, always return it to the knife block.

#### (2) Meat slicers

1. When not in use, ensure the power is always set to "off."
2. Confirm that there is no gap between the round blade and the cover plate (1-2 mm).
3. Even if meat scraps fly off of the motion during operation, refrain from reaching out suddenly, and always turn off the machine before cleaning up.
4. When cleaning the machine, confirm that the power is set to "off."
  - i. Always wear mesh gloves.
  - ii. After confirming that the power is set to "off," use a wet towel (white) to wipe down the blade, starting from the center and moving outward.
  - iii. Wipe the round blade with the blade cover attached.

#### (3) Ham slicer

1. When the machine is not in use, always make sure the switch is in the "off" position, and unplug the cord. Set the "thickness adjustment dial" to "0" to ensure there is no gap between the round blade and the cover plate (gage blade).
2. When using the machine, set the "thickness adjustment dial" for the gap between the round blade and the cover plate (gage blade) to "1-2."
3. Always fix the materials in place using the "food pressing spike," and never push materials down with your fingers.
4. When cleaning the machine, always set the switch to "off" and unplug the cord.
  - i. Always wear safety protective gloves (specialized for exclusive ham slicer use).
  - ii. Wipe the round blade starting from the center and moving outward.

#### (4) Tenderizer

1. When the machine is not in use, always set the power to "off." (For electric units only.)
2. Always wear mesh gloves during assembly and dismantling operations.
3. When removing blades, place a towel in the palm of your hand, cup the blade in the towel from below, then remove the screws.

\*Always wash blades that have been used.

## (5) Meat grinders

1. When not in use, ensure the power is always set to "off."
2. Especially for cleaning, confirm that the power is set to "off" prior to dismantling the machine.
3. When using the machine for product creation, always use the rod to push meat into the grinder.  
\*Never put your hands in the bowl under any circumstances.

## (6) Store

1. If there are fallen leaves, toothpicks, or other trash on the floor, pick them up immediately. Clean wet areas immediately.
2. If the front guard or partitions are broken, cracked, or otherwise damaged, replace them immediately.

## (7) Stock

1. Be careful not to stack processed meat too high on the shelves to avoid collapsing products.
2. Do not stack heavy items on top of light ones.
3. Do not stack items in an unstable manner.

## (8) Cleaning

1. When cleaning knives, hold the handle firmly and place it in a secure position in the sink first.
2. When stacking folded cardboard in cargo containers, stack carefully to keep the cardboard from collapsing.





## 2. Customer service basics

---

### Example (1) Fundamentals all employees must carry out

At small retail stores where employees often interact with customers, there are some common things that all employees must always do.

This section features samples from the handbooks given to supermarket employees.

<Customer first>

#### The five most important phrases for customer service

1. いらっしゃいませ (Irasshaimase / Welcome)
2. おそれいます (Osoreirimasu / Sorry for the inconvenience)
3. かしこまりました (Kashikomarimashita / Understood)
4. おまたせいたしました (Omataseitashimashita / Thank you for waiting)
5. まいどありがとうございます  
(Maido arigatou gozaimasu / Thank you for your business)

<Before going out onto the sales floor>

#### Grooming

Maintaining cleanliness and grooming and moving with confidence improves the first impression you give people, making them more likely to like you. Confirm whether your dress and actions are appropriate for handling foodstuffs.

(Female staff)

- Is your uniform clean?
- Are there any stains on your collar and sleeves?
- Are you wearing perfume?
- Are your nails trimmed neatly?
- Are your makeup and lipstick mild and subdued?
- Are your hands clean?
- Are your nails free of polish and decorations? (Clear nail polish is okay.)
- Are your shoes clean?
- Is your shirt buttoned properly?
- Is your name plate in the prescribed location?
- Are your earrings small? (Gold or silver earrings with a radius of 3 mm or less are acceptable.)

## Greetings

If you're going to work, everyone would prefer to work comfortably.  
Cheerful greetings are the foundation of the workplace.

- Be cheerful and energetic, always taking the initiative.
- "Good morning" when you report to work.
- Say "Goodbye" before leaving work.

Also try to use these polite phrases: "Please wait a minute."  
"I'm terribly sorry."  
and "Excuse me."

(Things to be careful of)

- Never use company terminology with customers.
- Avoid being overly familiar with other employees and acquaintances as well.
- Avoid referring to people by their positions alone. (Mr. \_\_\_\_, the owner)



## When interacting with customers

- Do not refer to people with Mr. or Ms., but instead use sir and ma'am.
- Smile and be sincere without exception.
- Interact with a cheerful and energetic attitude.
- Maintain an attitude of gratitude toward customers.
- Speak politely when interacting with customers.

## Breaks and meals

Keep everything orderly so that the next person can have an enjoyable break (meal).

- Refrain from eating or smoking outside of designated areas.
- Clean up properly after eating or drinking.
- Push your chair in when leaving your post.

## Handling phone calls

Even when you cannot see the other person, you get a sense of their emotions on the phone.

Always be cheerful and polite at all times regardless of who you're talking to.

- Do not use an informal greeting: "Hello."
- Pick up the phone no later than on the second ring.
- "Thank you for your business. This is (name), (department) supervisor at the (branch of location) (store)."
- If the phone rings three or more times before you can answer it, use the following answer. "Sorry to keep you waiting. This is (name), (department) supervisor at the (branch of location) (store)."
- Confirm who you are speaking with.

(Note) Personal calls are strictly prohibited. Making personal calls on your cell phone during work hours is also prohibited.



**Practicing the 5 most important phrases for expressing gratitude to the customer**

◆Practicing the 5 customer service phrases with an attitude of gratitude.

	Bowing angle	Amount of time in silence at the bottom	Time to return to a standing position
(1) いらっしゃいませ Irasshaimase (Welcome.)	… 45 degrees	1 beat	4 beats
(2) おそれいます Osoreimasu (Sorry for the inconvenience.)	… 30 degrees	1 beats	3 beats
(3) かしこまりました Kashikomarisita (Understood.)	… 30 degrees	1 beats	3 beats
(4) おまたせいたしました Omatase itashimashita (Thank you for waiting.)	… 30 degrees	1 beats	3 beats
(5) 毎度、ありがとうございます Maido arigatou gozaimasu (Thank you for your business.)	… 45 degrees	1 beats	4 beats

\*Letters in red indicate bow timing

1 beat = 1 second

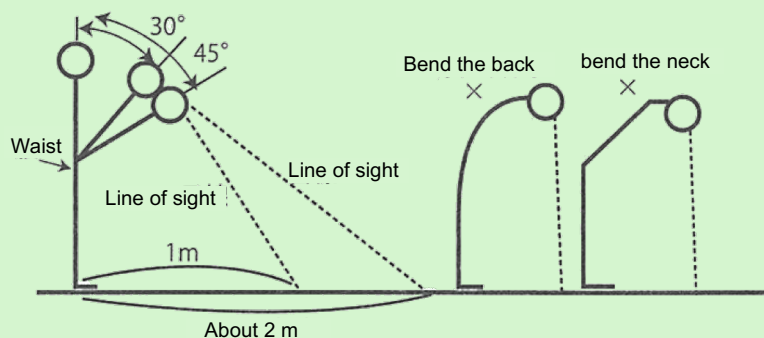
<Cautionary Points>

- Place your left hand on top of your right hand, crossing your thumbs over one another.  
(Hold your left thumb in place with your right thumb.)
- Position your hands around the height of your navel.
- Bowing is not lowering from the head, but rather bending at the waist with your back straight.
- When bowing, the lowering phase should be performed quickly.
- After bowing (to either 45 degrees or 30 degrees), remain perfectly still and silent for 1 beat.
- Raise yourself back up slowly, using the beat counts above as a guide.  
(The purpose of this is to ensure that you don't raise yourself back up faster than the customer does.)
- For phrases (1) - (4), start bowing right when you start speaking.
- For phrase (5), start bowing after saying "Thank you."
- When hosting events, confirm that everyone has finished bowing (returned to a normal standing position) before continuing to the next phrase.



(Things to be careful of)

For "Welcome," from the time the store opens until around 11:00 a.m., add "Good morning" at the start of this phrase. From 11:00 a.m. to 3:00 p.m., add "Good afternoon" to the start of the phrase.



<When going out on the sales floor>

**Things to bear in mind on the sales floor**

Always think about "making the shopping experience comfortable for the customer."

- Be bright and cheerful when you say "Welcome."
- Pay attention to trash, keep things in order, and promptly wipe down any dirty areas.
- Always return items you've used to their specified locations.
- Refrain from making idle conversation (personal talk).
- Be careful to avoid causing the customer any inconvenience during their shopping experience.  
(Avoid blocking the aisles and product sales areas. Customers must also be given priority for stairs. Stay to the corners and edges of the space as much as possible.)
- Be especially careful of hygiene, and keep your clothes and hands clean.
- Wash your hands frequently.
- Refrain from standing with your hands in your pockets.
- Move briskly.
- As a general rule, do not use facilities for customers.



<5S Seiri (Sorting), Seiton (Setting-in-Order), Seisou (Shining), Seiketsu (Standardizing), Shukan (Sustaining)>

**5S**

Maintaining 5S helps make the workplace a safer and more fun and productive environment for both you and other staff working with you.

1. Seiri (Sorting): Clear specification of needed and unneeded items, prompt disposal of unneeded items.
2. Seiton (Setting-in-Order): Placement of needed items in an easy-to-use configuration that everyone can understand. (Fixed position management)
3. Seisou (Shining): Keeping the space clean.
4. Seiketsu (Standardizing): Keeping the environment hygienic and free of dirt.
5. Shukan (Sustaining): Always using the proper items in the correct manner.

Organization, tidiness, and cleaning are not one-time operations, but must be continuously performed. Pick up trash, keep everything organized, and pick things away immediately if you notice they've been left out. Building the habits of carrying out these kinds of actions in a totally natural way is what the H of OTCSH, "Habits," is all about. When employees develop the right habits, it makes the workplace more comfortable for everyone.



## Example (2) Yearly events that employees should know about

Stores carry out events and provide special products during different seasons throughout the year. In addition, a 30-page A5 size booklet has been prepared and distributed to employees to ensure they can answer questions if customers ask about these events.

The following is a portion of this booklet.

(Tanabata and midsummer day of the ox pages)



(Booklet cover)

<p>Why do people eat somen noodles on Tanabata?</p>	<p>Strips of paper and decorations are hung on a small bamboo tree to ward off evil, and people wish upon the stars. This tradition is said to date back to the Edo period.</p>	<p>"Tanabata" is a seasonal event. The legend of Orihime and Hikoboshi meeting once a year at the Milky Way is famous.</p> <p><b>Tanabata</b></p> <p>July 7th</p>
<p>Some people also say that somen is eaten on Tanabata because of its resemblance to the Milky Way.</p>	<p>More and more households eat Tanabata chirashizushi (sushi rice with toppings scattered over it) in recent years. The star-shaped ingredients are beautiful.</p>	<p>This is based on a Chinese legend that states eating a dessert made of flour called "sakupei" on July 7th gives you good health for the year.</p>
<p>In the ancient "Manyoshu" poetry anthology, there's a line that says, "Eating eel helps with the summer heat." This shows that the nutritional benefits of eel have been well-known in Japan for a long time. Nowadays, people associate eating eel with standing up to the summer heat, and when people think about the midsummer day of the ox, it's immediately connected with eating eel.</p>	<p>18 days before the first days of spring, summer, fall, and winter is called "mid-season". During each of the four "mid-season" periods, there are one or two days of the ox, so there are at least four of these days every year.</p> <p><b>Midsummer day of the ox</b></p> <p>Mid July to early August</p>	
<p>Because the name ushi no hi (day of the ox) starts with u, there was a custom of eating foods that start with u to stand up to the summer heat, and unagi (eel) is a perfect choice.</p>	<p>The connection between eel and the midsummer day of the ox came about in the Edo period when Hiraga Gennai, a scholar at that time, declared that "midsummer day of the ox is eel day" to support a struggling eel restaurant.</p>	
<p>On ushi no hi (day of the ox), people eat foods that start with u</p> <p>People say that the heat won't get to you if you eat foods like unagi (eel), ushiniku (beef), umaniku (horse meat), udon noodles, umeboshi (pickled Japanese plum), and uri (gourd). *Shijimi clams and mid-season rice cakes are also good choices.</p>		

### 3. Roll box pallet (container cart) safe operations

#### <Basic operations>

**Strict compliance:** ● Always operate carts with both hands.

- As a general rule, keep hand position during operation between shoulder and waist height, and carry out work with consideration for the weight of the load and ease of operation.
- For improved operability, apply force evenly with both hands.
- When moving or stopping carts, avoid relying entirely on arm strength, and be sure to bend your knees and use your legs as well for these operations.
- In areas with poor visibility, stop and look around to confirm before proceeding.
- Use the stopper built into the caster whenever the cart is not in motion.



**Cautionary points:** ● Be careful in areas with steps or gradations, as falls may occur.

- As the side width increases, the grip of your hands on the support poles widens, bringing your body closer to the roll box pallet, so be careful of making contact with it and getting clothes and fingers, etc. caught in the moving parts.
- Always inspect the equipment prior to use. If you confirm any problems, apply tape or some other marking to indicate the unit is out of order and promptly complete repairs.

**Forbidden actions:** ● Never perform operations with your bare hands.

- Never kick carts to move them. ● Never run or walk with large steps when conducting operations.
- Never ride on an unloaded cart because there is a risk of falling.
- Never handle multiple linked units because there is a risk of carts derailing and overturning.

#### <Pulling>

Because the operator stands at the front of the roll box pallet for "pulling," there is a low risk of colliding with a third party. For this reason, this type of operation is used for movement in supermarkets and other retail stores.

##### ◆ Merits

- Low risk of colliding with a third party.
- Easy to control movement, even in confined spaces.

##### ◆ Demerits

- The path ahead is difficult to see. • Walking backwards makes foot movement difficult.
- Not well-suited to long distance movement.

##### ◆ Important points

- Movements can start with "pulling" before transitioning to "lateral pushing" and "pushing."



#### <Folding up, assembling, and stacking>

**Strict compliance:** ● Always carry out movement after assembling units, as there is a risk of falling if they are folded up.

- When units must be folded up to pass through a narrow passage or for some other unavoidable reason, stand by the interior side panel and use pushing to move.
- When storing folded up roll box pallets stacked on top of each other, there is a risk of them falling due to road slope or the wind, so always make sure the storage area is a flat surface and use rope or other materials to fix them in place.

**Cautionary points:** ● The L-shaped folding type falls from the back panel easily, so please be careful of this.





(1) Acquiring information about workplace injuries and deaths, as well as related ordinances

While promoting preventive measures for workplace-related injury and death, maintaining an understanding of the rate of occurrence of these incidents and specific examples and applying this knowledge is very effective.

This kind of workplace injury and death information is available at the following website.

[1] Workplace safety site

→ <http://anzeninfo.mhlw.go.jp/index.html>

This site contains information collected by the Ministry of Health, Labour and Welfare related to workplace-related injury and death prevention.

The following are examples of the type of information available.

- Workplace-related injury and death statistics
- Actual examples of incidents (workplace-related injuries and deaths, incident database, near-miss incidents, etc.)
- Initiatives to promote safety and peace of mind for employees in stores and facilities

[2] Safety and health information center

→ <http://www.jaish.gr.jp/index.html>

This site contains information collected by the Japan Industrial Safety and Health Association related to safety and health.

- Ordinances related to safety and health
- List of reports and announcements made by the Ministry of Health, Labour and Welfare related to safety and health, etc.

## (2) Acquiring documents related to safety and health

The various documents (leaflets, etc.) related to this manual can be acquired through the following:

### <Ministry of Health, Labour and Welfare materials>

[1] "Ensuring proper working conditions, safety, and health for dispatch workers"

→ <http://www.mhlw.go.jp/file/06-Seisakujouhou-11200000-Roudoukijunkyoku/0000069165.pdf>

[2] "Starting October 1st, 2013, new standards have been added to the 'labour Safety and Health Regulations' and are in effect for food processing equipment"

→ <http://www.mhlw.go.jp/bunya/roudoukijun/anzeneisei14/dl/130606-3.pdf>

[3] "Preventing lower back pain in the workplace"

→ <http://www.mhlw.go.jp/new-info/kobetu/roudou/gyousei/anzen/dl/131114-01.pdf>

[4] "Preventing heatstroke"

→ <http://www.mhlw.go.jp/houdou/2009/06/dl/h0616-1b.pdf>

[5] Initiatives to promote safety and peace of mind for employees in stores and facilities (website and leaflet)

Positive examples of safety in tertiary industries are printed in pamphlets and other materials.

→ <http://anzeninfo.mhlw.go.jp/information/sanjisangyo.html>

→ <http://www.mhlw.go.jp/file/04-Houdouhappyou-11302000-Roudoukijunkyokuanzeneiseibu-Anzenka/0000146227.pdf>

[6] "Slippery area maps" inside supermarket stores

→ [https://www.jniosh.go.jp/publication/houkoku/supermarketslip\\_201612.pdf](https://www.jniosh.go.jp/publication/houkoku/supermarketslip_201612.pdf)

[7] Safety and health manual for the use of roll box pallets "8 rules for safe operation"

→ <http://www.mhlw.go.jp/file/06-Seisakujouhou-11300000-Roudoukijunkyokuanzeneiseibu/0000098499.pdf>

\* Website with various safety and health-related leaflets:

[http://www.mhlw.go.jp/stf/seisakunitsuite/bunya/koyou\\_roudou/roudoukijun/gyousei/anzen/index.html](http://www.mhlw.go.jp/stf/seisakunitsuite/bunya/koyou_roudou/roudoukijun/gyousei/anzen/index.html)

### <Japan International Training Cooperation Organization>

[1] JITCO teaching materials for technical practice and training support

→ <https://www.jitco.or.jp/text/panf.html>

[2] Ensuring the safety and health of technician trainees engaged in foodstuffs manufacturing (for technical trainees)

→ [http://www.jitco.or.jp/download/data/text/syokuhin\\_japanese.pdf](http://www.jitco.or.jp/download/data/text/syokuhin_japanese.pdf)

### <Searching for Materials>

For example, the Ministry of Health, Labour and Welfare website has a search bar on the top page, and keywords such as those shown below can be typed in to easily find materials.

Dispatch workers safety and health

Search

## Part 2 Safety and Health Training for Unskilled Workers (for lecturers)

This part was written under the assumption that the lecturer will conduct the safety and health training by distributing its handouts and/or by projecting the PowerPoint presentation material “For all workers in commerce, to work in safe and in good health”<sup>(Note)</sup>. This part lists all the important points for the lecture. The upper part of a page shows the material for employees while the lower part shows the explanation.

During the safety and health training, it is more efficient to speak in details as much as possible while providing examples of actual occupational accidents the company experienced (if they have one). It is also better if you can share personal experiences that will help increase awareness of participants.

(Note) Material is available on the website of Ministry of Health, labour and Welfare.

## Point 1 There are various dangers at workplace!

**[Occupational accident case 1] Got caught by a roller of a machine!**

### 1 Occurrence of occupational accident

- ① A worker was disassembling the roller of a meat chopper for cleaning.
- ② He put his hand into the insert port to push out the roller.
- ③ He stepped on the foot switch, and the roller started to move and caught his hand.
- ④ Power switch was broken then, and the power supply of the machine was switched on at all times.

### 2 Unsafe operation

- ① The worker didn't switch off the machine while cleaning it.
- ② Power switch was left broken and not repaired.
- ③ Workers didn't unplug the power plug. Also, it was not instructed to do so.
- ④ The operation procedure was not clear.
- ⑤ The safety training was not enough.
- ⑥ Risk assessment was not given sufficiently.



### 3 For safe operation

- ① Let workers understand the various types of dangers including food processing machines at workplace.
- ② Stop the machine whenever it needs cleaning or adjusting (during trouble shooting).
- ③ Power off the machine or unplug it.
- ④ Follow operation procedure all the time (safe system, emergency stop switch, operation method, etc.).

## 【Explanation】

1 Let employees understand that there are many possible dangers at workplace, and an accident may occur any time.

To help them realize that a workplace is dangerous, it is effective to show actual occurrence of work accidents. This page shows a case where a worker got caught his hand by a meat chopper while he was disassembling it to clean up. This is from the "Website of workplace safety" of Ministry of Health, Labour and Welfare".

2 To understand what was the cause of the accident.

This case focus on a worker's unsafe action.

Most frequent accidents in food processing machines are getting caught by machine or cut by blade in cleaning while he/she doesn't turn off the machine. This can be a severe accident, and safe operation is especially necessary.

3 To prevent accident

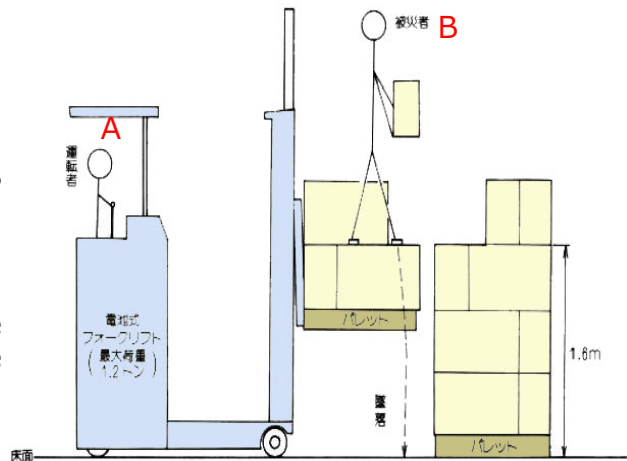
To prevent an accident, it is important for each worker to consider and understand what is necessary for prevention by themselves.



## 【Occupational accident case 2】 Fall from forklift while handling loads!

### 1 Occurrence of occupational accident

- ① During shipment, worker A was driving a battery-powered forklift (Max. load 1.2 t), worker B was loading products.
- ② To load products onto the lift, worker B got on the pallet on the forklift and loaded products with the forks up.
- ③ When worker B put his foot on a case on pallet to load a product on it, the case leaned unstably, and the worker fell to the ground while holding the box.



### 2 Unsafe operation

- ① Non-licensed worker drove the forklift.
- ② They used forklift for unsafe operation of lifting a worker, and the worker worked on unstable pallet.
- ③ Director was not appointed when working with forklift.

### 3 For safe operation

- ① For operations that requires license such as forklifts, engagement of non-licensed worker is prohibited.
- ② In forklift operation, a worker should work following a operation plan wrote by a operation director.
- ③ Don't use forklift to lift a person, or any other unsafe operations.

## 【Explanation】

### 1 Let employees understand that there are many possible dangers at workplace, and an accident may occur any time.

To help them realize that a workplace is dangerous, it is effective to show actual occurrence of work accidents. This page introduces an accident case where a worker fell while a dangerous operation using a forklift, which is frequently used in DIY shop or wholesale. This is from the "Website of workplace safety" of Ministry of Health, Labour and Welfare".

### 2 To understand what was the cause of the accident.

This case focus on a worker's unsafe action.

Let employees understand that operation at height is dangerous.

Operation at height needs countermeasures to prevent a fall. Furthermore, this operation is also prohibited by law, and so let them understand the importance of observing laws, standards and rules.

### 3 To prevent accident

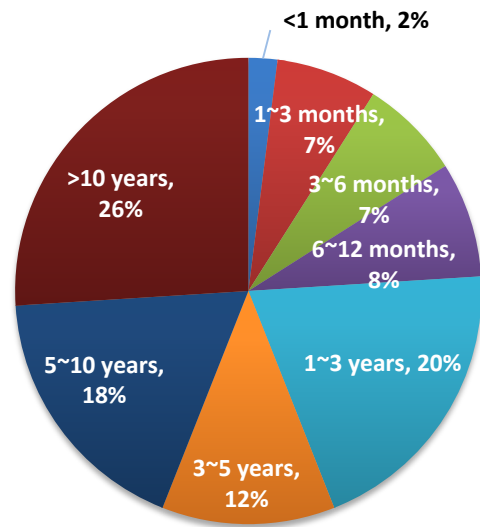
To prevent an accident, it is important for each worker to consider and understand what is necessary for prevention by themselves.

**[Tendency of occupational accidents]**

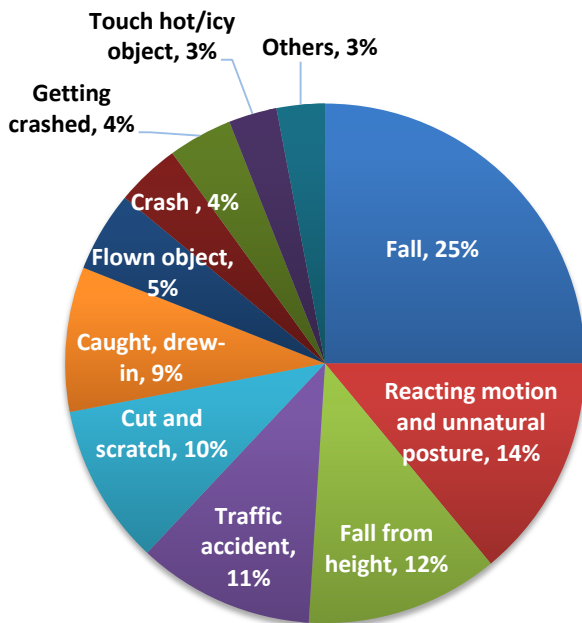
**1 Many occupational accidents occur for unskilled workers (with less than three years experience)!**

- ① Workers with less than one year experience account for much ratio, 24%.
- ② Workers with less than three years experience account for 44%.

2015 Dead or injured accidents by years of experience (Commerce)



Dead or Injured accidents of unskilled workers by accident type in 2015 (commerce)



**2 Fall accidents account much for 25%!**

- ① Falls by slipped or tripped stands high for 25%.
- ② Back pain injury including lifting heavy objects or unnatural action account for 14%.
- ③ Fall when taking down a product on ladder accounts for 12%.

**[ Explanation ]**

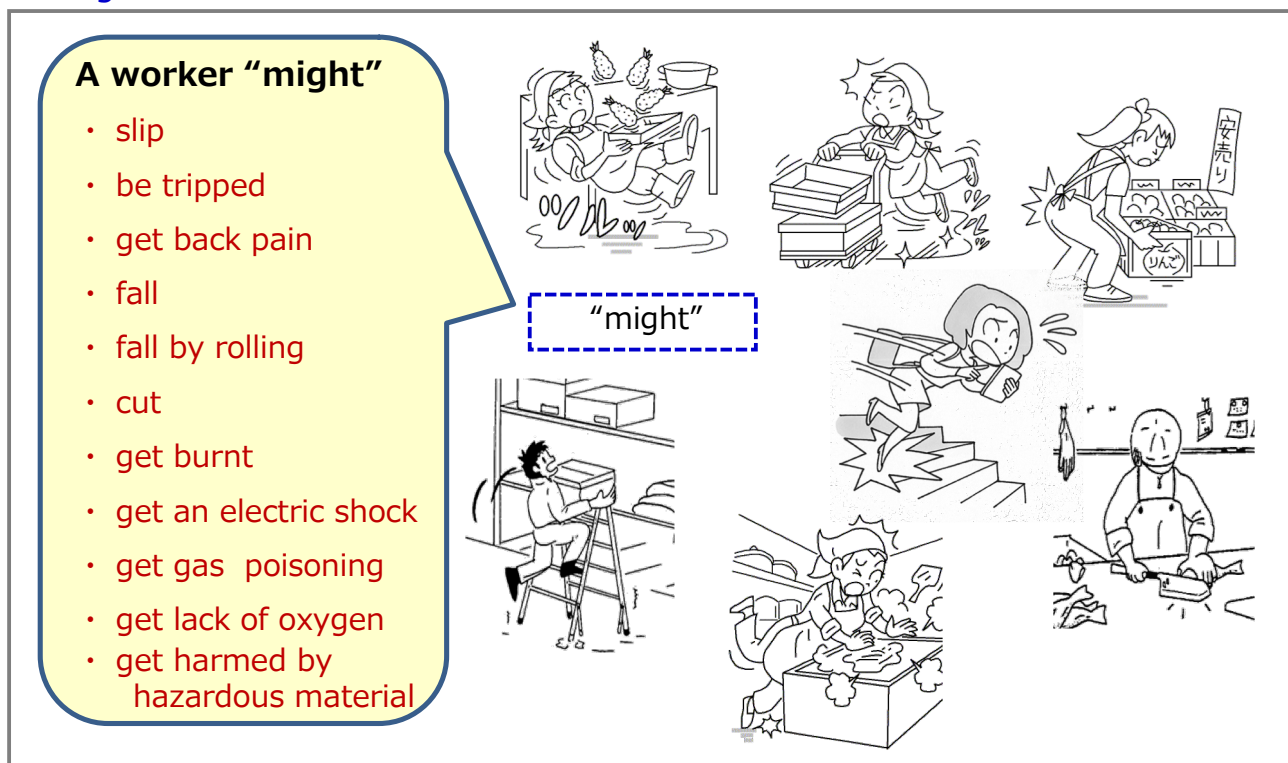
**1 Raise awareness of danger by understanding how many and what type of accidents occur.**

- (1) Highlight that many accidents occur for unskilled workers with less than three years of experience. Then, let them understand that safety and health training is important to know danger, and to save themselves from it.
- (2) Explain that 24% of the accidents occurred among workers with less than one year of experience. Also, more than 40% of all accidents happen for worker with three years of experience. Highlight that accidents occur when a worker gets used to his assigned operation.
- (3) First, explain that the most frequent accident is "fall" accident. This is due to slipping or tripped while a worker is walking in a hurry. Also, explain that there are many possible dangers including "back pain" while lifting a heavy object, "fall" from ladder or stairs, and "cut and scratch" by knife or machine blade.

For this case, you can show accident cases in manual for better understanding.

## Point 2 Know a danger by questioning "might" risks!

### ["Might" risks of a worker's action]



#### 【 Explanation 】

#### 1 To understand that the workplace is dangerous is the basics of safety.

##### (1) Unskilled workers are not sensitive to danger

Interview of companies shows that unskilled workers think workplaces are safe in many cases, and are not sensitive to danger.

So, in many cases, they take unsafe motion (dangerous motion) automatically, resulting in an occupational accident.

##### (2) "Might" questions can notify workers on the occurrence of danger

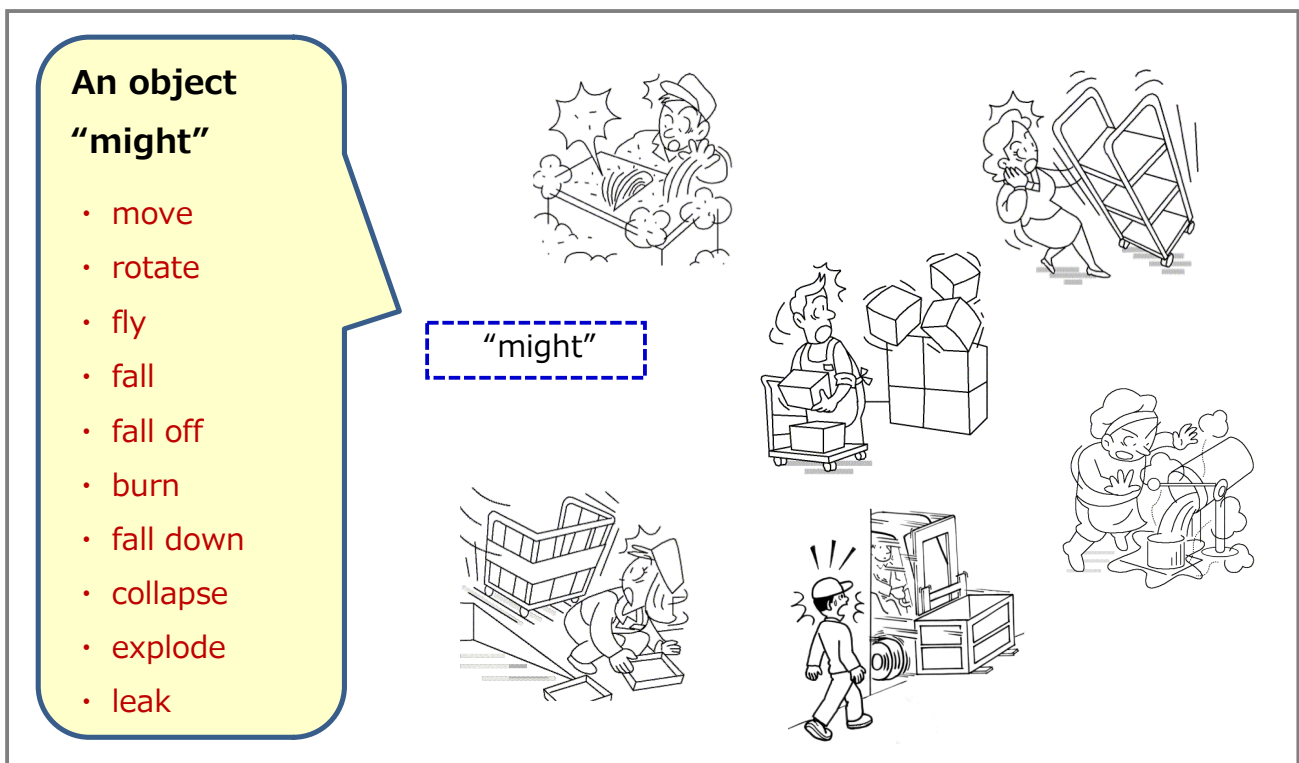
This is a training that raises awareness of danger. Thinking of different "might" situations will help increase awareness of danger in the workplace.

- When a worker is walking, he/she "might slip on the floor" or he/she "might get tripped on the floor".
- When a worker brings up a heavy object, he/she "might get back pain".
- When a worker takes an object on the shelf using a ladder, he/she "might fall".
- When a worker walks down stairs using a smartphone, he/she "might fall down from stairs".
- When a worker uses a knife, he/she "might cut his/her hand".
- When a worker uses a heater, he/she "might get burnt".

##### (3) Introduce "might" question examples with accident cases.

Explaining actual examples in near-miss (Hiyari-Hatto) cases on page 25 is also effective.

## ["Might" risks of an object]



### [Explanation]

#### 1 To be aware of "might" situations of an object.

##### (1) Unskilled workers are not sensitive to danger.

An object might "move rapidly" or "fall from height". Let them understand these danger could occur.

A worker may walk into unsafe status of an object without knowing it, and this may lead to an occupational accident.

##### (2) "Might" questions can notify workers on the occurrence of danger.

This is a training that raises awareness of danger. Thinking of different "might" situations will help increase awareness of danger in the workplace.

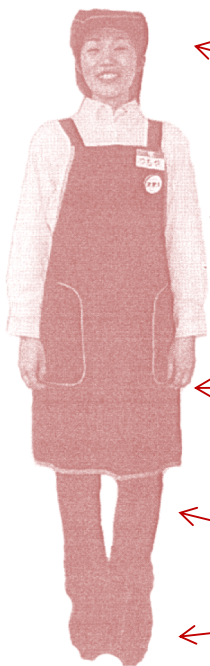
- A machine "might run by accident"
- A cart "might fall down"
- Stacked product "might fall"
- Hot water "might be still hot"
- A basket cart "might move suddenly"
- A forklift "might appear suddenly"

##### (3) Introduce "might" examples with accident cases.

## Point 3 Safe operations start with the proper attire!

[Example 1]

- ◆ Be ready to the fact that you will be interacting with **customers**.
- ◆ Proper **grooming** is important, including for safety.
- ◆ For personnel handling foodstuffs, **cleanliness** is extremely important.



### 1. Head

- [1] Bangs should not cover the eyebrows. [2] Long hair should be put up.
- [3] Hair should be its natural color, and not dyed. [4] Make-up should be restrained.

### 2. Shirts

- [1] All buttons should be buttoned. [2] Shirt tails should not be tucked into pants.
- [3] As a general rule, refrain from rolling up your sleeves.

### 3. Apron

- [1] Attach a name tag on the left side of your chest. [2] Make sure the loop that goes over your shoulders is not twisted up. [3] Avoid putting too much in your pockets.

- ### 4. Pants:
- The bottom edge of the legs should not touch the floor. Adjust the length of your pants to prevent this.

- ### 5. Shoes:
- (1) Heel: Do not wear shoes with the heel crushed down.
  - (2) Choose colors such as white, black, or brown, and avoid flashy shoes that stand out.

### 【Explanation】

#### 1. Explain the importance of wearing the assigned clothing.

##### (1) Thinking about fundamentals

Start by thinking about the fundamentals such as "awareness of your attire for interacting with customers," "grooming," and "cleanliness."

##### (2) The assigned clothing varies depending on the operation content.

Explain what kinds of risks there are in the workplace and why the assigned clothing and protective gear must be worn.

[1] Loose clothing could get caught in machinery. It could also get stuck on something, causing an injury.

[2] Choosing the proper footwear (slip resistant) is important for preventing falls.

#### 2. For operations where protective gear is required, explain why this equipment is required and what to be careful of when using it.

For example, in cases where gloves and protective clothing are required, explain the cautionary points and the proper way to wear this equipment.

## [Example 2]

- ◆ Wear the assigned **safe attire** during operations.
- ◆ Working attire should **fit well** and be comfortable to wear.
- ◆ When wearing long sleeved shirts, **cuffs should be kept closed**, and the tails should be tucked **into your pants**.
- ◆ Refrain from keeping blades, screwdrivers, drills, and other equipment **in your pockets** during operations.
- ◆ If you keep towels and handkerchiefs around your neck or wear scarves, ties, and other similar items, **there is a risk of these items getting caught in machinery**, so these items should not be worn.

[Wear safety helmet properly]

- Check to make sure chin straps are tied and not too loose and hats are not worn too far back.
- Confirm that old items are not damaged.
- This equipment is normally used to prevent injuries due to crashes.



### 【Explanation】

The appropriate clothing also changes a great deal depending on work content. In positions that use forklifts, conduct work operations in high places, or use wood processing machinery and other equipment, you must be careful of the following.

(Although this will not be introduced in Part 1 of this manual, it is included as a reference point for consideration of differences by job type.)

#### 1. Explain the importance of wearing the assigned clothing.

(1) Generally, the required clothing is assigned based on operation content. Explain what kinds of risks there are and why the assigned clothing and protective gear must be worn.

[1] Loose clothing could be caught in running machinery, causing an accident.

[2] The proper footwear (slip resistant) is important for preventing falls.

#### 2. For operations where protective gear is required, explain why this equipment is required and what to be careful of when using it.

For example, when safety helmets are required, pay attention to the following points when explaining how to wear it.

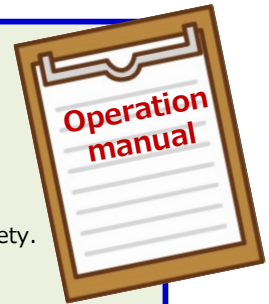
[1] Safety helmets used for protection from flying and falling objects are not very effective in crashes.

[2] When hard hats are not worn correctly, they can slide off during falls, and there are many cases of this causing serious injuries.

## Point 4 Follow the assigned operating procedures!

- The workplace is full of unexpected dangers.
- The operating procedure for the workplace is a set of rules assigned for safety, health, and efficient operations.
- Follow the operating procedure and protect yourself.

- ◆ Carefully follow the **operating procedure** (operating standards).
- ◆ **Practice** the operating procedure shown in the operation procedure document **repeatedly** and commit it to muscle memory.
- ◆ Maintain a good understanding of **things you should and should not do** for the sake of safety.
- ◆ If you **do not understand** the operating procedure, do something about it. Talk to a supervisor and confirm the procedure.
- ◆ **Be careful of injuries from getting too comfortable**, and avoid acting rashly or using excessive force.



### [Cautionary points for fryer safety]

- [1] As a general rule, do not lift heaters when there is oil inside. (The heater could fall, spilling oil and causing severe burns.)
- [2] Do not lift heaters when they are turned on. Turn off the power first. (This helps prevent fires.)
- [3] Maintain the assigned oil volume. (This helps prevent fires.)



### [Explanation]

1. Explain the importance of the following assigned operation procedure (manual), with the goal of thorough compliance.

- (1) The operation procedure document is a collection of workplace rules designed for "safe and good work performed efficiently." Explain that following these rules is a fundamental aspect of work, and ensure employees understand the importance of this.
- (2) The operation procedure document contains essential safety and health processes for operations. Explain the reasons why some processes must and must not be carried out, and ensure employees understand that complying with the operation procedure document's rules is important for protecting themselves as well.  
For this point, introducing an example of a work-related injury or death caused by not following the rules makes the lesson more effective.

(Example) The cautionary points during fryer operations are displayed.

In this example, reasons for why the precautions are in place, such as "the heater could fall, spilling oil and causing severe burns," are indicated. If you explain the reasons for them alongside the rules, compliance can be improved.

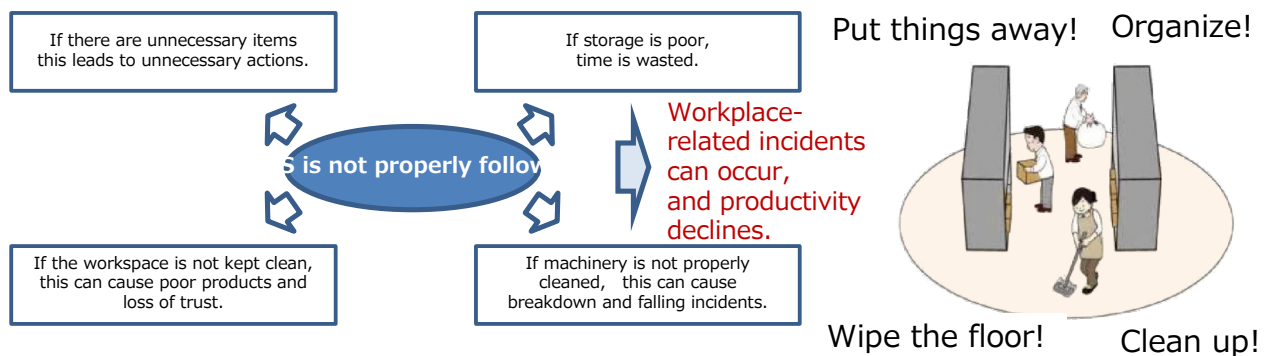
In this example, see "Workplace-related incident 5." Explaining a workplace-related incident as well increases the effectiveness still further.

- (3) In cases where there is safety equipment or emergency stopping equipment, having the employees experience using it for themselves so they will have a sense of its necessity and application is important.



## Point 5 Improve safety through implementing 4S and 5S!

- ◆ **Seiri/Sorting:** Divide up items into necessary and unnecessary, and dispose of unnecessary items.  
→Improves operation efficiency improves and reduces the risk of falling incidents.
- ◆ **Seiton/Setting-in-Order:** Store the necessary items in a manner that is easy to use and understand.  
→Reduces wasted time and improves quality as well.
- ◆ **Seisou/Shining:** Eliminate any dirt and keep yourself clean and well-groomed.  
→Improves quality, prevents food poisoning, and can keep foreign materials from mixing into products.
- ◆ **Seiketsu/Standardizing:** Eliminate dirt and trash from machinery and the operations area.  
→Maintains machinery functionality and reduces the risk of falling incidents.
- ◆ **Shukan/Sustaining:** Follow the rules properly.  
→Through repetition, ensure carrying out operations with proper safety and health is so natural for staff that it is almost automatic.



### 【Explanation】

1. Inspire employees to understand the importance of 4S (5S) and make it a part of their routine.
  - (1) Thoroughly explain the negative effects of not following 4S (5S), and ensure employees understand the importance of 4S.
    - [1] If unnecessary items are left lying around, this increases the risk of stumbling and falling, and also worsens the flow of operations.
    - [2] If you have to search for what you need, operating efficiency drops. Also, setting-in-order makes missing items and other problems easier to detect for food-related operations, and enables quicker discovery of foreign object contamination.
    - [3] This is crucial for maintaining normal operation of machinery. Also, maintaining sanitation and cleanliness in the workspace is crucial for preventing food poisoning when handling food products.
    - [4] Immediately wiping up wet spots on the floor is crucial for preventing slipping incidents.
    - [5] Just understanding seiri/sorting, seiton/setting-in-order, seisou/shining, and seiketsu/standardizing is not enough. It is important for employees to also make a habit of carrying out these procedures.
  - (2) Ensure that employees have a good understanding of the effectiveness of 4S and 5S and conduct themselves to maintain safety and health.  
If 4S and 5S are thoroughly applied, this will have the positive effects indicated by the arrows (→) above. This is essential for operating efficiency, safety and health.
  - (3) Introducing examples of workplace-related incidents caused by failure to implement 4S and 5S makes this even more effective.

## Point 6 If all employees maintain safety in the operations, the entire workplace will be safer!

Implement thorough preventive measures for slipping, back injuries, falls, scrapes and cuts, getting caught in machinery, and heat stroke. The examples here are near misses, but they will be introduced as workplace-related incident examples.

### (1) Important points to prevent fall and slipping accidents

#### ■ Maintain "seiri/sorting," "seiton/setting-in-order," "seisou/shining," and "seiketsu/standardizing" on the floor at all times for safety!

- Wipe any wet spots on the floor thoroughly (be careful of wet areas during cleaning)
- Unnecessary items can cause stumbling and falling.

#### ■ Use a cart to move large and heavy objects!

When using a cart is impossible, either carry the object with another employee assisting or divide up the load into multiple trips.

#### ■ Refrain from carrying anything extra during moving operations!

Carrying things can increase the risk of falls.

#### ■ Ensure there is sufficient light on pathways!



### 【Explanation】

#### 1. "Seiri/sorting," "seiton/setting-in-order," "seisou/shining," and "seiketsu/standardizing" keep the floor safe!

"The employee attempted to cross a walkway space while carrying a bowl. When he tried to step over a hose, his foot got caught in it and he fell, breaking his elbow." This is an accident which occurred. Unnecessary items on the floor can cause stumbling falls. Also, water or oil on the floor causes slipping falls. To prevent these problems, thorough implementation of 4S (5S) is required.

\*Picture above shows: While deep-frying foods in the vegetable prep area, some of the tempura oil splattered on the floor. The employee slipped on this oil and fell.  
(Cleaning the floor, choosing footwear carefully, and moving with calm composure are important.)

#### 2. Refrain from carrying anything extra during moving operations!

"Carrying cardboard boxes in both hands while going down a flight of stairs, the employee missed a step and fell." This is an actual accident that occurred. Carrying something prevents you from seeing where you're stepping, which is a major risk for missing steps and falling.

#### 3. Ensure there is sufficient light on pathways!

If pathways are insufficiently lit, employees fail to notice uneven surfaces and other obstacles, increasing the risk of falls. Ensure that the lighting on pathways is sufficient.

#### 4. Use a cart to move large and heavy objects!

Large objects prevent you from seeing your feet while you walk, which is a major risk for falls. Use a cart or other equipment to move these objects.

## [Cases of falls]

■ **Case①-1** When a worker took down a product case on upper row in a warehouse, he didn't notice a case near him on the floor, and he almost fell on the case.



■ **Case①-2** When a worker brought a bread case from factory to parking for shipment, he didn't notice a empty case on the floor, and he got trapped by the case on his foot and fell down.



■ **Case①-3** While carrying product cases at 1:00 am, a worker fell down slipping on an icy road.



■ **Case①-4** While carrying a cart after delivery, a cart tire fell off into gutter of the road and the cart suddenly stopped, and then the worker fell on the cart.



---

## [Explanation]

### ○ Case ① -1

- Use a stable step when bringing down an object from an upper row.
- Always organize the inside of the warehouse so that unused objects will not interfere with work and passage (4S・5S)

### ○ Case ① -2

- Don't leave an object that a worker uses in operation, and check safety before the operation starts. (4S・5S)
- When a worker carries a few cases at a time, limit the number of the cases to allow a worker to clearly see where he is going.

### ○ Case ① -3

- Wear non-skid shoes. • Light up the road.
- Display a notice on the slippy road in winter.

### ○ Case ① -4

- Eliminate the level difference on a cart passage. Put lid on the gutter.
- Display a notice that warns level difference and gutter.

## (2) Important points to prevent back pain injuries

### ■ Working posture, movements (handling of heavy objects)

- Stay as close to heavy objects as possible and maintain a low center of gravity.

- [When lifting heavy objects]

Move one foot slightly further forward, bend your knees, lower your back sufficiently, grip the heavy object, and lift it up by straightening your knees.

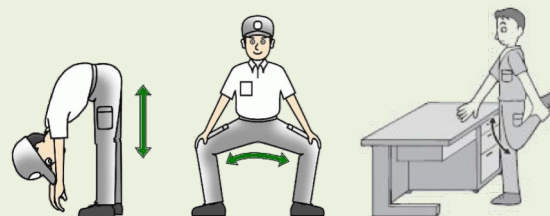
When lifting heavy objects, take a deep breath and brace your abdominals prior to lifting.

- [Moving while holding heavy objects]

Keep movement distances short, and avoid carrying heavy objects up and down stairs.

### ■ Back pain prevention exercise

Practice back pain prevention exercises with a focus on stretching.



### [Explanation]

Back pain makes up about 60% of work-related ailments, and occurs in many workplaces. Prevent back pain with the following measures.

#### 1. Working posture, movements (handling of heavy objects)

"When the employee picked up products that were laying on the floor to put them on a work surface, he injured his back." This is an actual accident that occurred.

Even if the objects being picked up are not heavy, lifting with improper posture can still cause a back injury. Always use proper posture when lifting objects.

#### 2. Back pain prevention exercise

Back injuries can occur due to handling of heavy objects and poor posture during work operations. Stretching before working is an important method for preventing back injuries.

Implement back pain prevention exercises with a focus on stretching prior to conducting work operations. This is especially important for older employees.

## [Cases of back pain injury]

- Case②-1 On steep stair in front of the customer's house, a worker lifted two tanks of kerosene (18 L) one each on his hand, and then got back pain.



- Case②-2 While selling fruits in the front of a supermarket, a worker lifted up a box of apples and felt back pain.



- Case②-3 A worker lifted up a rice cooker pot (about 8 kg of rice in it) to set it into the cooker, he felt strong pain on his back.



## [Explanation]

### ○ Case②-1

Total weight is:  $18\ell \times 2 \times 0.8$  (specific weight) = 28.8Kg This is almost the limit of weight allowed in rules. If possible, a worker should lift it one by one onto the cart.

① When a worker lifts up a heavy object, don't lift up at a time, but steep down his body enough and lift up it slowly.

② A male worker can handle the weight less than about 40% of his body weight. (28 Kg for the body weight of 70Kg)

③ A female worker can handle the 60% of the weight that a male can do.

### ○ Case②-2

Apple box would be 12 Kg-20 Kg. Assuming that the female worker weighs about 50 Kg, the limit is:  $50\text{ Kg} \times 0.4 \times 0.6 = 12\text{ Kg}$ . So, apple box is too heavy for a female worker.

① Once steep down his/her body and then lift up a heavy object.

② With checking the (product) load weight, consider which method is appropriate in advance.

### ○ Case②-3

The weight is not too heavy, but he didn't hold in appropriate posture when lifting up the object.

① To lift up a heavy object, first, approach his body to the object, put his foot slightly forward in front of him, steep down and hold the object, then lift it up slowly.

② To move a heavy object, use a cart if possible.

### (3) Points to prevent falls from height

#### ■ Use ladder appropriately!

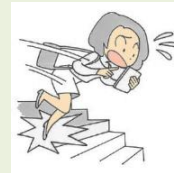
- When a worker used a ladder to take down a product from a shelf, he fell down together with the unstable ladder.



- Use ladder lock, and two workers must work together when a worker has to hold a product on the ladder.

#### ■ Walking down/up the stairs slowly with his hand holding the handrail!

- Carrying an object, or watching on a smart phone while walking on the stairs might cause danger.
- Make a habit of safe action when walking down/up the stairs.



#### ■ Keep a distance when working or walking on a platform!

- Also carrying a cart on a platform may cause a fall.
- Keep distance from the edge.
- A cart may fall from a platform or truck bed while shipment.
  - ⇒ Falling cart might struck a worker who tries to hold it!
  - ⇒ **Don't try to hold it.**



### 【Explanation】

#### 1 Falls from height might result in a severe injury!

Even if the height is not so much, but many cases resulted in severe injuries. Keep safe operation at height.

#### 2 Use a ladder appropriately!

Follow the safe use of ladder.

- ① Don't use the top step of the ladder.
- ② Use ladder lock every time.
- ③ Don't use a ladder on a level difference or unstable floor.

#### 3 Watching smart phone while walking on a stairs is dangerous!

It is very unsafe, and it is necessary to raise awareness including visualization for workers.

#### 4 Avoid a fall of a cart from the edge of a platform or tail gate lift!

If a cart falls, worker should not try to hold it, but "release and keep a distance from it" In many cases, workers try to hold it and then get injured. A cart weighs much, and a worker can't hold it.

### [Cases of falls from height]

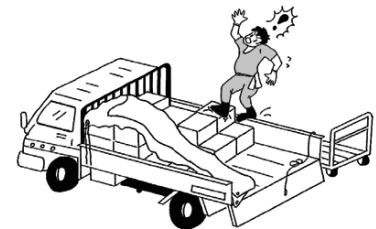
■ **Case③-1** A worker walked down stairs when coming to workplace, she fell down from stairs as she focused on the mobile phone.



■ **Case③-2** When a worker went down the stairs in a shop with holding a tailor's dummy at 1:00 pm, the stairs were wet with rain and she slipped and fell down from the stairs.



■ **Case③-3** A worker loaded 25 boxes of wood plate (15 kg per plate) onto a truck, and was going to cover the boxes with cover sheet. He tied the left side of the cover sheet, and was walking between the products and the right edge on the truck bed, and then he lost balance and fell from the truck.



---

### [Explanation]

#### ○ Case ③ -1

- The worker didn't see forward enough as she used mobile phone when walking down the stairs. Also she didn't take care of the stairs.
- Don't walk and use mobile phone while walking especially on stairs. Make a stop when you use a mobile phone.

#### ○ Case ③ -2

- The worker couldn't see her foot as holding the dummy. The stairs was wet with rain.
- Hold handrail at least by a hand when going down the stairs.
- Wipe and clean the stairs and floor when it rains as customers might fell too.

#### ○ Case ③ -3

- The worker walked on unsafe space between products and the edge on the truck bed. He didn't check his space to walk as was in hurry.
- Prepare and use a safe step while shipment operation.
- Use a safe step for the sheet covering operation to avoid working in unsafe status.
- Wear a safety cap (for fall prevention) every time.



#### (4) Points to prevent cuts and scratches

- **Stop the machine whenever you clean a blade or a cutter!**

Cleaning a blade or a cutter with a machine running causes severe injury caught by the machine.

- **Prevent sudden start of the machine while an operation with the machine is ongoing while it is being stop!**

Other worker may turn on the switch without notice.  
Display a sign.

- **Put a knife in safe manner and on safe area!**

Perform 4 S (Seiri/Sorting, Seiton/Setting-in-order, Seiso/Shining, Seiketsu/Standardizing), and put a knife on the designated place after use.



---

#### 【Explanation】

##### 1 Pay attention when cleaning a blade or a cutter of process machine!

In some cases, a worker cleans a food processing machine with the machine turned on, and it results in severe accidents including cut of his/her finger or hand by caught in the machine.

Whenever you inspect, clean, or maintenance a machine, turn it off and check if the machine stopped properly at all time.

##### 2 Prevent incautious start while stopping a machine!

While working on a machine while it is stopped, turn off the power source every time to prevent incautious start. Then, display a sign "Don't turn on the machine!" or modify the machine not to start without a key, and hold the key by himself. These methods prevents an incautious start.

##### 3 Put a knife in safe manner and on safe area!

In some case, a worker didn't notice a knife left near the working area, and cut his finger.

Perform 4 S (Seiri/Sorting, Seiton/Setting-in-order, Seiso/Shining, Seiketsu/Standardizing), and put a knife on the designated place after use.

### [Cases of cut and scratch]

■ **Case④-1** A worker was slicing bread on a work counter in a factory. As he slices bread with pushing it by hand, he touched the slicer with his finger.



■ **Case④-2** At 10:00 am, when a worker sliced raw fish for sushi in a kitchen, the cutting board stuck to the table and didn't move. She pulled the board hard with her hand, and then a knife on the board jumped and almost cut her hand.



■ **Case④-3** While cleaning a meat grinder after processing mince meat, a worker turned off the machine and approached his hand to cutter near the port. However, the cutter was still rolling freely, and he touched the cutter by his finger.



■ **Case④-4** While a worker was cutting a cardboard by a cutter to lay it under the product on shelf, he almost got cut on his thigh with the cutter in a speedy motion.



### [Explanation]

○ **Case ④ -1**

- The worker didn't use a pushing plate, instead used his hand to push the bread to the slicer.
- Use pushing plate when using slicer.

○ **Case ④ -2**

- A worker tried to lift up the cutting board with the knife on it.
- Put a knife outside the cutting board every time. • Designate a proper place to put the knife.

○ **Case ④ -3**

- The worker tried to touch the cutter too early after turning off the machine.
- Turn off not only the machine but the main switch when cleaning the machine.  
(This also can gain time before cleaning.)
- Display a warning that notify the cutter doesn't stop instantly.

○ **Case ④ -4**

- He pulled the cutter to cut in a speedy motion.
- Use cutter with its blade out as little as possible.
- Be aware of position during the use of cutter.

(5) Points to prevent getting caught and drawn in

■ Stop a machine every time of cleaning and maintenance!

Cleaning a machine when it is running causes severe accident of caught by rolling blades and cutters.



■ Prevent sudden start of the machine while an operation after you stop the machine!

Display a sign of cleaning or working, and hold the switch by yourself to prevent incautious start.

■ Don't remove a safety cover or safety itself!

Keep the safe environment by inspection and maintenance.

【Explanation】

1 Clean, repair or maintenance the machine after stopping it!

Some accidents happened when the machine started suddenly while a worker tried to fix it as it got out of order. Stop conveyor and such rolling part every time of cleaning and maintenance.

2 Prevent sudden start of the machine while cleaning, maintenance or repair even if you stop it!

There is a case when while this worker was exchanging a belt that links hydraulic turbine and power motor of a food washer, another worker switched on the machine without checking, and then the worker's middle finger was caught in the machine.

Display a sign of maintenance, hold the starting switch by yourself to prevent sudden start of the machine.

3 Don't remove a safety cover or safety system itself!

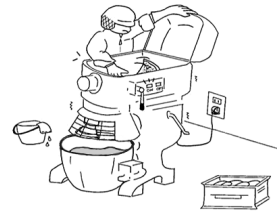
It is very dangerous to kill the function of the safety cover or safety system to stop the machine in emergency. Keep a safe facility by frequent inspections and maintenance.

4 Pay attention not to "get caught" by a forklift or a carrying tool!

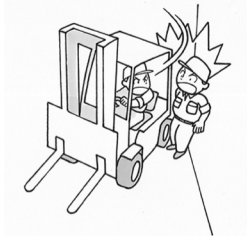
Perform prevention not to get caught by roll box pallet, cart or forklift.

## [Cases of getting caught and drawn-in]

■ **Case④-1** In the meat processing section, a worker switched off the machine to clean the meat remaining to change the meat part, he put his hand in the mixer though it was still moving, his hand got caught.



■ **Case④-2** A worker was standing on the left side of a forklift and talked with a driver about product inspection in a warehouse. When the forklift started to move by turning to the right, the worker got caught between the left rear of the forklift and the wall of the warehouse.



■ **Case④-3** When a worker coordinated shipping products, he rotated a pallet cart with many products on it. Then, he got caught his foot by the rotated cart.



---

## [Explanation]

### ○ Case④-1

- Modify the machine with interlock so that mixer cover will open after the mixing blades stop.
- When a worker put in his hand into the machine, first he must turn it off and remove the plug, hang a sign "Don't turn on the machine", check the blades if they have stopped completely, after then he can proceed cleaning the machine.

### ○ Case④-2

- During driving a forklift, make a call with pointing his finger, saying "Clear right! Clear left! Clear forward!", and check safety sufficiently.
- Also, a worker around a forklift should ensure a safe position where the driver can see him.

### ○ Case④-3

- Wear safety shoes while using a pallet cart at all times.
- Also when rotating the cart direction, don't move the pallet cart with its center not fit to the worker's body center.

## (Reference) Points for preventing heatstroke incidents

There is a risk of heatstroke in workplaces with high temperatures and humidity.

### ■ Prevent heatstroke!

- Be careful of changes in your physical condition such as lack of sleep.

Also pay attention to those around you.

- Wear clothing with good breathability that is absorbent and quick-drying.
- Take frequent breaks to drink water.



### ■ The following symptoms could be signs of heatstroke!

- Dizziness, lightheadedness, numbness in the hands and feet, muscle cramps, feeling sick
- Headaches, nausea, vomiting, exhaustion, lethargy, feeling different than usual
- Strange responses, fainting, convulsions, body is hot to the touch (**serious**)

### ■ Contact a supervisor and carry out the follow measures!

- Evacuate to a cooler area
- Loosen clothing, cool body (especially neck, sides, and the base of the feet)
- Supply water, salt, and oral hydration solution (salt and glucose dissolved in water)

**If employees are unable to drink water on their own or are unconscious, call an ambulance immediately!**

### [Explanation]

"During food preparations in the storage room, the employee began feeling sick and was diagnosed with heatstroke."

It's important to be aware that heatstroke can occur when working indoors as well.

#### 1. Prevent heatstroke!

Prevention, early detection, and early treatment are important for heatstroke. Carry out appropriate health management and hydration.

#### 2. The following symptoms could be signs of heatstroke!

The important thing for handling heatstroke is recognizing the symptoms by yourself and also noticing when something is wrong with the other operators around you.

Understanding the symptoms of heatstroke is crucial for this.

#### 3. Call a supervisor and carry out the following measures!

In addition to carrying out the necessary measures immediately, contact a supervisor. If the employee is unconscious, call an ambulance immediately. Failure to respond quickly in this situation can be fatal. Calling an ambulance immediately to ensure the affected employee reaches the hospital as soon as possible is crucial.

### [Reference materials]

"Prevent Heatstroke!" Ministry of Health, Labour and Welfare leaflet  
<http://www.mhlw.go.jp/new-info/kobetu/roudou/gyousei/anzen/090630-1.html>

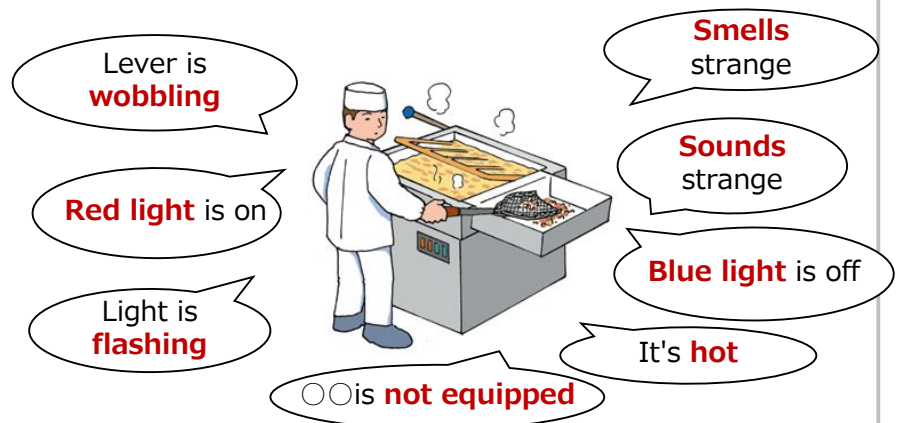
## Point 7 In case of accidents or abnormal situations!

### (1) If you notice an abnormal situation

- ① If an emergency happens, first, check what is happening.
- ② Yell in a loud voice to notify the manager and the colleagues near you.
- ③ Stop the machine by emergency button if necessary.
- ④ Take necessary action cooperating with colleagues under the direction of the manager.
- ⑤ Don't handle it only by yourself, call someone.

#### **【Tell others! 】**

If something is strange from usual, tell it to the leader or other worker!



#### 【Explanation】

#### 1 Provide safety and health training preparing for emergency

When a worker faces an emergency, he/she will get upset, and this may lead to a serious trouble or an accident.

Provide the following training to employees in advance.

- What kind of emergency could happen
- How should they respond to the emergency
- It is very important to perform a rehearsal assuming emergency cases and necessary actions.
- Let trainee perform the rehearsal after the lesson. (Emergency rehearsal after their learning is effective.)

#### 2 Notice a change when something is different from usual.

A worker may feel something strange while the machine is moving. As the picture shows, he/she feels different state such as "Something smells strange," "Red light is on suggesting something is strange," or "A light is flashing." It is important to notice these indications.

#### 3 Tell it immediately to the manager

When you notice an unusual state, tell it immediately to your manager. If you respond to it by yourself without understanding the situation properly, you might suffer any trouble in emergency.

## (2) If an occupational accident happens!

Even if a workplace is well prepared for safety, the possibility of occupational accidents can not be reduced to zero percent.

In case an occupational accident happens, response to it as following.



### In case an accident happens (example)

**An emergency  
happens**



**Necessary  
response**

**First, keep calm!**

- Don't rush, it could lead to the second accident
- Yell and inform others about it in a loud voice

**Rescue the accident victim(s)!**

**Tell it to your manager!**

- Support and help the leader's action.  
(Transport to the hospital, etc.)

#### 【Explanation】

It is necessary to decide who should respond in what manner during an emergency (earthquake, fire, etc.) or an occupational accident. So, please provide regular safety and health training and education to act properly during an accident.

#### 1 First, keep calm and don't rush

Yell and tell if an accident happens.

When a coworker get caught in a machine or get an electric shock, our usual response is to rescue them immediately. However, even after occurrence of accidents, the dangerous situation still remains and those who are trying to help them also may suffer such accidents.

It is important to learn appropriate response through safety and health training, on what action a worker should take to prevent a subsequent accident.

#### 2 Tell it to the manager

Basically, respond like when you responded when there was an abnormal situation.

Stop the dangerous status by pushing the emergency stop button, or turn off the machine.

Tell the manager about the emergency, and follow his directions. (If emergency transport to the hospital is necessary, you may be asked to help it.)





Safety first!

Compilation Committee of Training Manual on Safety and Health  
for Unskilled Workers (Commerce)

Masaru Akagi	Occupational safety consultant, Occupational health consultant
Nobuo Ozawa	New Supermarket Association of Japan, Researcher
Shigeo Kobayashi	Occupational safety consultant, Occupational health consultant
Tomoho Shintaku (Chair)	Japan Production Skill labour Association, Executive Director
Shinichi Nakatsu	Japan Voluntary Chain Association, Managing director
Tadashige Yamaguchi	Safety and health consultant





