

Specified Skilled Worker(i)
Study Materials for Skills Assessment
Test for Food Service Industry
“Hygiene Controls”

Version 1 (2021 April 15 revision)

Provisional Translation (English)

Japan Foodservice Association

<Introduction to the translated version>

These "Study Materials for Skills Assessment Test For Food Service Industry" introduce the basic knowledge and skills required to work in the restaurant sector. under the requirements of Specified Skilled Worker(i). Furthermore, the Japanese vocabulary used in the original materials constitutes a basic requirement to be able to work in the restaurant sector in Japan

The skills assessment test required to obtain a status of residence for Specified Skilled Worker(i), consists of three subjects.

Hygiene Control Related Matters	“Hygiene Controls”
Matters Predominantly Related to Preparation Tasks	“Preparation of Food and Drink”
Matters Predominantly Related to Customer Service Operations	“Customer Service”

The Study Materials are similarly made up of these three subjects.

This material introduces “Hygiene Controls” which are matters predominantly related to the hygiene controls deemed necessary to work in food service industry. The material introduces the basic knowledge etc., needed for the tasks; however, some content may differ from the rules etc., applicable in the actual place you work. This is because, while the basic concepts are the same, the way they are carried out may differ depending on the place you work. In this case, please observe the rules that apply in your workplace.

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I . Knowledge of basic hygiene controls

1. Basic knowledge of food poisoning

(1) Main causes of outbreaks of food poisoning in restaurants

A lot of food poisoning occurs for the following reasons due to a lack of hygiene controls.

- (A) Hygiene controls for the employees who prepare food are not observed - examples being poor physical health and lack of adequate hand washing etc.
- (B) Raw ingredients are delivered by suppliers who do not implement adequate hygiene controls.
- (C) Food is not heated through thoroughly.
- (D) The temperature of food is not controlled properly etc.

Factors such as these cause bacteria and viruses to come into contact with food, causing health problems such as vomiting and diarrhea for consumers. In addition, poor hygiene controls can allow other undesirable matter to get into food, apart from bacteria and viruses. For example detergents, insecticides, glass and shards of metal etc.

(2) Categories of food poisoning

Food poisoning falls into the following categories. To help prevent food poisoning, the measures taken need to be tailored to the characteristics of the relevant category. And with 90%+ of all food poisoning being caused by bacteria and viruses, it is vital to understand the countermeasures for these categories.

Category	Key causative agents	Key countermeasures
Bacterial food poisoning	Enterohemorrhagic E. coli (O157 etc.) Salmonella genua Staphylococcus etc.	Do not contaminate food with pathogenic microbes Prevent the growth of pathogenic microbes Kill pathogenic microbes
Viral food poisoning	Norovirus Hepatitis E virus etc	Do not contaminate food with the virus Kill the virus Do not import the virus Do not spread the virus
Chemical food poisoning	Detergents, insecticides, pesticides etc.	Do not contaminate food with chemical substances
Parasitic food poisoning	Anisakis, round worm etc.	Do not contaminate food with parasites Kill the parasites

2. The 3 principles for food poisoning prevention

Food poisoning occurs when we eat food that is contaminated with bacteria and viruses that are harmful to humans (hereinafter “harmful bacteria and viruses” etc.). To prevent bacterial food poisoning, the 3 principles shown below are important.



(1) Do not contaminate food with pathogenic microbes

There are a wide variety of bacteria on your hands.

Make sure you always wash your hands in the following situations so that you do not contaminate food with harmful bacteria and viruses.

- (A) Before you start preparing food
- (B) Before and after handling raw meat and fish, and eggs etc.
- (C) After going to the toilet or wiping you nose etc., while you are preparing food

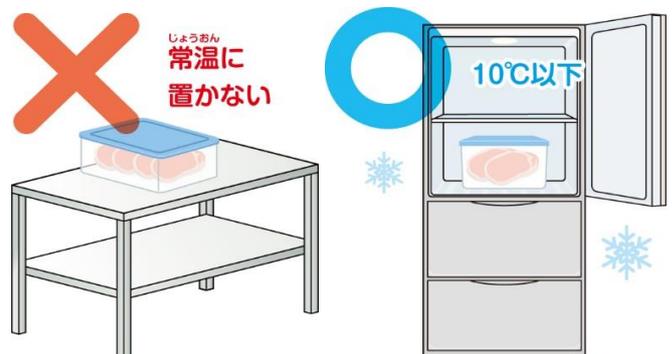


There is also a lot of harmful bacteria on chopping boards and knives that have been used to cut raw meat and fish. Therefore you should use chopping boards and knives for this kind of food that are separate from those used for food that is not cooked. If you do use the same chopping boards and knives, make sure you wash and disinfect them properly each time you use them.



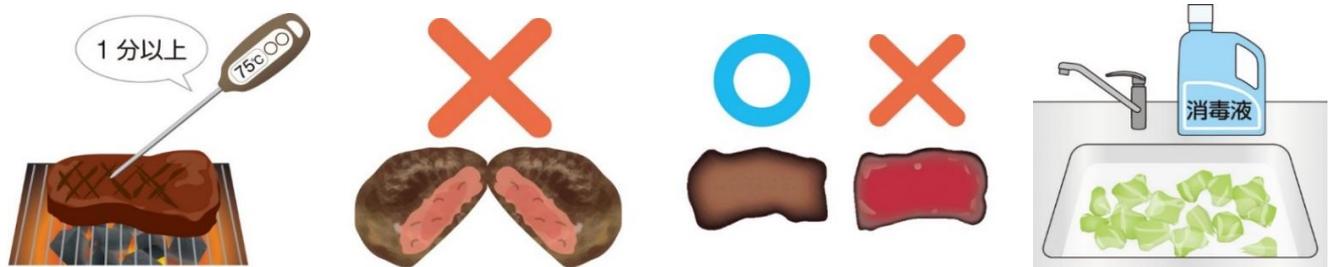
(2) Prevent the growth of pathogenic microbes

The higher the temperature and the humidity, the more many bacteria increase. At 10°C and below, the increase is gradual. At -15°C and below, there is no increase. Therefore it is important to store food at 10°C or below. However, even at 10°C or below there is still a gradual increase in bacteria, so it is important to use food within the specified expiry date.



(3) Kill pathogenic microbes

Most harmful bacteria and viruses can be killed off by cooking (applying heat). Since raw meat, fish and vegetables may contain harmful bacteria, you can eat them if you cook them first. For bivalves (seafood) and meat in particular, it is important to heat the core up to 75°C and cook for at least one minute at that temperature. Foods that are not cooked with heat (such as salads etc.) should be sterilized as required (to kill off any bacteria).

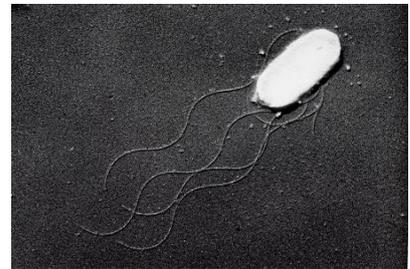


3. Typical bacteria and viruses that cause food poisoning

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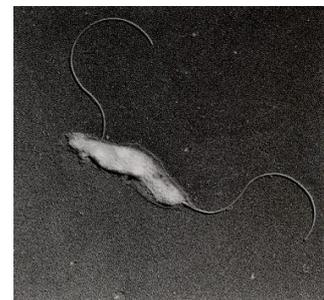
(1) Enterohemorrhagic E. coli (O157, O111 etc.)

This is one of the E.coli pathogens found in the intestines of cows and pigs. It is very poisonous and causes abdominal pain, watery diarrhea, and diarrhea with bleeding. It is in meat like beef and pork etc., and you get food poisoning from it if you eat raw meat. You can also get food poisoning if food is under-cooked.



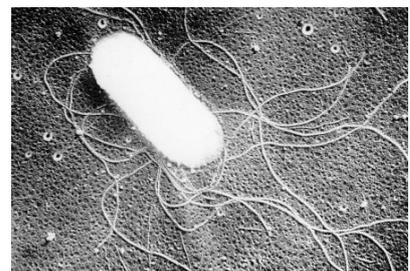
(2) Campylobacter

This bacteria is found in the intestines of cows, pigs and chickens etc. You get food poisoning from it if you eat raw meat that contains this bacteria. You can also get food poisoning if food is under-cooked.



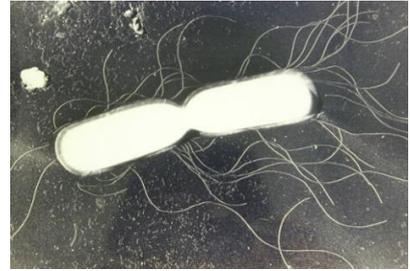
(3) Salmonella genus

This bacteria is found in the intestines of cows, pigs and chickens etc. It can also be present in chicken eggs. You can also get food poisoning if you eat raw, or undercooked, meat that contains the bacteria.



(4) Bacillus Cereus

This bacteria is widely found in the natural world, in rivers and in the earth etc. The main sources of contamination are foods that tend to have soil attached such as grains (including rices), beans, and spices etc. If hygiene controls are not properly enforced, you may get cases of food poisoning from fried rice (*chahan*) or spaghetti etc.



(5) Staphylococcus aureus

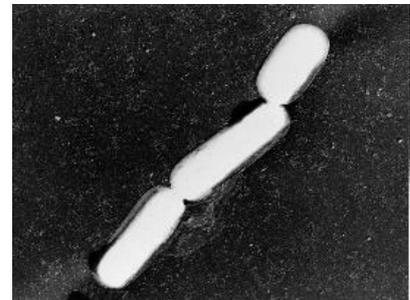
This bacteria is found in humans' skin, throats and open wounds. The risk of contaminating food is particularly high if the people preparing food have any cuts on their hands or fingers.



(6) Clostridium perfringens

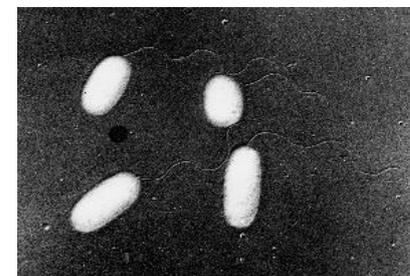
This is a wide-spread bacteria that lives in the intestines of humans and animals, as well as in the soil. Characteristically it creates spores in places with no oxygen. Foods that can cause this type of food poisoning are curries and stews.

It is important to rapidly cool down food that has been cooked with heat.



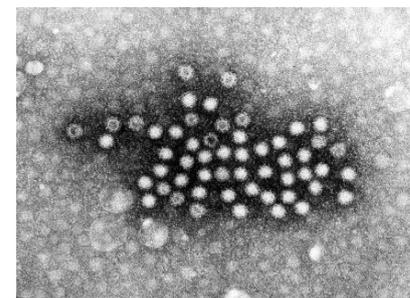
(7) Vibrio parahaemolyticus

This bacteria lives in sea water and sea silt. The bacteria becomes active when the temperature of sea water rises in the summer and it contaminates seafood. You get food poisoning if you eat raw fish that contains this bacteria. It is important to wash seafood in fresh water, or cook it.



(8) Norovirus

You will get food poisoning from bivalves (seafood) contaminated with the norovirus if you eat them without cooking them enough. Norovirus is also contained in feces and vomit, so it is important to wash your hands after going to the toilet.



II . Knowledge of good hygiene practice

1. Delivery check

There may be harmful bacteria etc., growing in the following types of food supplies.

- (A) Foods that are rotten
- (B) Foods with broken packaging
- (C) Foods past their expiry date
- (D) Foods that have not been kept properly

Therefore, you should make proper checks when taking delivery of food supplies using the procedures listed below.

- (1) When the food supplies arrive, check that the products and amounts delivered are the same as those ordered.

- (2) Then check the appearance, smell, condition of the packaging and the labels (for expiry date, “best before” date, and storage method) etc.

- (3) If possible check the temperature of refrigerated/frozen products (using an infrared thermometer for example). And only leave refrigerated/frozen products at room temperature for as short a time as possible.

- (4) If you discover any problems, you should send the products back using the specified returns method.

- (5) These details should be recorded in a diary.

* Histamine

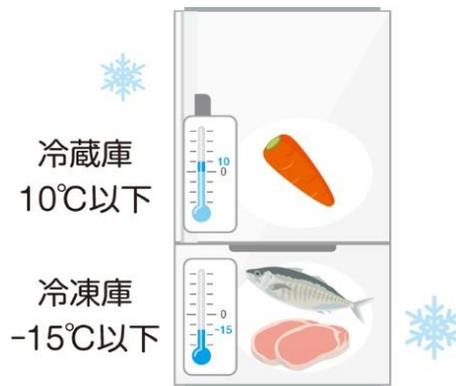
Red fish (and products made from it) that has lost its freshness may contain a compound called “histamine.” Eating food that contains histamine can cause food poisoning that leads to an allergic reaction. Histamine increases if food is badly preserved, so it is important to get delivered products straight into the fridge or freezer.

2. Check storage temperature (Refrigerator/Freezer)

Controlling the temperature of food supplies and food is important. Harmful bacteria can grow if the temperature in fridges/freezers is not properly controlled. The quality of food supplies and food may also suffer. Therefore, you should make proper checks on the temperature in fridges/freezers using the procedures listed below.

(1) Check the thermometer that shows the temperature inside the fridge/freezer. If there is no internal thermometer, be sure to install one. Thermometers that allow you to see the temperature from the outside are convenient. And decide in advance what the optimum control temperature should be for the fridges/freezers respectively.

E.G.) Fridges should be no more than 10°C; and freezers should be at -15°C or cooler.



(2) Always check temperatures daily and decide beforehand when they will be checked (E.G. Before work begins.) Also check the dates of stored food supplies and food (expiry dates and “best before” dates). And use up the food supplies and food in storage before these dates.

(3) If you discover any problems, you should respond in the prescribed manner.

E.G.) report to the person in charge etc.

(4) These details should be recorded in a diary.

3. Prevent cross contamination

Cross contamination means that the bacteria on raw meat and seafood etc comes into contact with other raw ingredients and foods. Cross contamination may occur while raw ingredients and food are being stored, or prepared. Therefore, the following precautions should be taken.

(1) Raw ingredients, such as raw meat and fish, should be placed in lidded containers. And they should be stored on the bottom shelf of the fridge (to ensure that any liquid leaking from the raw meat and fish does not fall onto any other ingredients below). Within the fridge, you should have dedicated spaces for storing different types of raw ingredients and foods. You should also have dedicated kitchen utensils (such as chopping boards and knives etc.) for different types of ingredient like meat and fish etc; and the utensils should be thoroughly washed and disinfected after use.



(2) Storage conditions within the fridge should be regularly checked, to a predetermined schedule. Likewise, the way that kitchen utensils are used and cleaned should also be regularly checked.

(3) If you discover any problems, you should respond in the prescribed manner.

E.G.) If chopping boards or knives are dirty, you should wash them again and disinfect them.

(4) These details should be recorded in a diary.

4. Cleaning and disinfection of utensils

If kitchen utensils etc. are left dirty, this can contaminate other raw ingredients and foods and spread bacteria. Therefore, the following precautions should be taken.

(1) Kitchen utensils should be separated by use - for example those used for meat, or those used for fish etc. And as soon as they have been used, they should be thoroughly washed and disinfected as per the procedures in point (5) below.

(2) The washing of kitchen utensils should be checked at prescribed frequencies.

(3) If you discover any problems, you should respond in the prescribed manner.

E.G.) If you find something has been left dirty, you should rewash and disinfect the item before using it etc.

(4) These details should be recorded in a diary.

(5) Washing procedures

- Chopping boards, knives, spatulas etc.

(A) Rinse with tap water to remove visible dirt.

(B) Apply detergent to a scrub-sponge, lather it up and wash the item well.

(C) Rinse well with tap water to remove the detergent.

(D) Disinfect using boiling water, chlorinated disinfectant, or a 70% alcohol solution.

(E) Dry properly and store in a clean place.

- Cloths & towels etc.

(A) Rinse with tap water.

(B) Apply detergent, lather it up and wash the item well.

(C) Rinse well with tap water to remove the detergent.

(D) If possible place in boiling water and boil for at least 5 minutes to disinfect the item, or alternatively use a chlorinated disinfectant.

(E) Dry and store in a clean place.



* Controls on detergents/disinfectants used in the kitchen

Detergents/disinfectants used in the kitchen need to be strictly controlled. If proper controls are not in place, there is a risk that detergents/disinfectants will mistakenly end up being used in food. If you transfer detergents/disinfectants into other containers, you should use specially-designated containers. And they should be clearly labeled to show the contents. Detergents/disinfectants should be stored in a prescribed place, with controls to ensure they are not mistakenly used in food.

5. Cleaning and disinfection of toilets

Toilets harbor a variety of harmful bacteria and viruses. And these bacteria and viruses can contaminate the hands of anyone who uses the toilets. Therefore, the following precautions should be taken.

(1) Toilets should be cleaned and disinfected as per the procedures in point (4) below. And checks should be made to ensure that they have been properly cleaned and disinfected.

(2) If you discover any problems, you should respond in the prescribed manner.

E.G.) If the toilets are dirty you should re-clean and disinfect them etc.

(3) These details should be recorded in a diary.

(4) Cleaning procedures

(A) Put on different clothes, shoes and rubber gloves to those you wear when preparing food.

(B) Use specific detergent, brushes and sponges that are for the toilet.

(C) Wipe the flush handles, door knobs and any other spots users are likely to touch with their hands using a chlorine based disinfectant.

(D) Clean the hand-washing facilities.

(E) Use a dedicated detergent and a brush to clean the toilet bowl. Then rinse it with running water.

(F) Use a dedicated detergent and a brush to clean the floor. Then rinse it with running water.

(G) Clean and dry the implements you have used before storing them.

(H) Wash your hands thoroughly once you have finished.

* Norovirus

Toilets may harbor the norovirus which is harmful to humans, or similar viruses or bacteria. The norovirus can contaminate the toilet seat, flush handle, hand rails and door knobs etc. So it is important to make sure these areas are properly washed and disinfected when you are cleaning the toilets.

6. Personal hygiene

If the following, or similar, cases apply to an employee, he/she may end up contaminating food with bacteria and viruses, or foreign substances that are harmful to humans.

- (A) An employee has diarrhea
- (B) An employee has cuts on his/her hands or fingers
- (C) An employee is wearing dirty work clothes
- (D) An employee is wearing jewelry (a wrist watch, necklace, ring, pierced earrings etc.) at work

Therefore, the following precautions should be taken.

(1) The checks listed in points (2)-(6) below should be carried out regularly (at a prescribed frequency).

(2) Check that no employee has vomiting or diarrhea. If anyone has these symptoms, he/she should not work and should be sent to the hospital for a check-up. If an employee has food poisoning, he/she should not work until the symptoms have cleared.

(3) Check that employees have no cuts on their hands and fingers. If there are any, apply a bandage and then wear gloves. Also, make sure that hands are washed hygienically, even when disposable gloves are worn.

(4) Check that employees are wearing clean clothes when handling food.

(5) Check that employees keep their hair clean and tied back if necessary.

(6) Check that employees are not wearing jewelry like wrist watches, necklaces, rings, or pierced earrings etc.

(7) These details should be recorded in a diary.

* Food poisoning caused by employees

There have been many cases of norovirus food poisoning in recent years. It is said that employees are responsible causing 80% of these outbreaks. Do not prepare food if you are displaying any symptoms such as diarrhea etc. Also be aware that in some cases you can be infected with the norovirus, with no visible symptoms, such as diarrhea etc. Therefore it is important that employees always wash their hands and take care of their health.

7. Enforce handwashing

Hands can be contaminated with harmful bacteria and viruses that are invisible. And the bacteria and viruses on hands can be transferred to food. Hand-washing is not just a matter of removing visible dirt - it also needs to remove bacteria and viruses. Therefore, the following procedures should be followed.

(1) Checks should be made to ensure hands are regularly being washed using sanitary techniques, at prescribed frequencies, as described in point (4) below.

(2) If you discover any problems, you should respond in the prescribed manner.

E.G.) If an employee is not washing his/her hands as often as prescribed, make them do so immediately, etc.

(3) These details should be recorded in a diary.

(4) Handwashing procedure

(A) Wash hands under running water

(B) Apply liquid soap to hands

- (C) Wash the palms of the hands and the pads of the fingers
- (D) Wash the back of hands and fingers.
- (E) Wash between fingers (the inner sides and around the base)
- (F) Wash thumbs and the pads around the base
- (G) Wash the fingertips
- (H) Wash the wrists
- (I) Thoroughly rinse off the liquid soap with running water
- (J) Wipe and dry hands
- (H) Sterilize with alcohol

Washing hands twice is very effective (repeat steps (B)-(I) above)

* Reference 1 provides an illustration that explains how to wash your hands.

8. Cleaning controls (for the kitchen) and waste disposal

(1) The “5S” saying

This is a slogan used to help keep the work place in a good condition. It is called “5S” because when the five Japanese terms are written in roman letters, each of the terms begins with the letter “S”. “5S” is a slogan used in places where food is handled, such as restaurants and food processing plants, in order to manage the environment on the premises.

(A) *SEIRI* (meaning “to organize”)

Separate things into those that are necessary and those that are not necessary, and dispose of the unnecessary.

(B) *SEITON* (meaning “to arrange neatly”)

Decide where things should go, and be sure to return them to their original place after you have used them.

(C) *SEISOU* (meaning “to clean up”)

The fundamental premise of hygiene. Always keep the premises clean with no rubbish or dirt.



(D) *SEIKETSU* (meaning “to be clean, or sanitary”)

If you ensure that the previous “3Ss” are carried out properly (i.e., you organize, arrange and clean up your premises) then your premises will be clean (*seiketsu*).

(E) *SYUKAN* (meaning “good habits”)

This means to keep, or teach good habits, by always correctly carrying out established practices.

If you use the “5S” slogan, your work place will be clean. These are also very effective practices for preventing food poisoning, the intrusion of foreign substances and work-place disasters in restaurants.

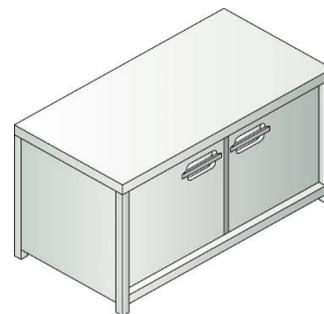
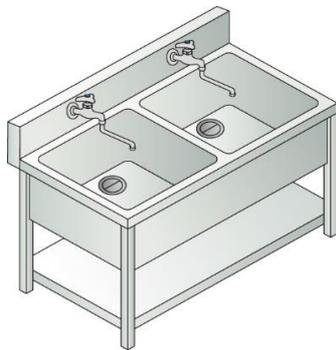
(2) Scheduled cleaning

Cleaning is important. But it is not possible to do all the cleaning while you are doing your every day work. So decide what needs cleaning and set up a cleaning schedule. E.G. Decide what needs to be cleaned every day, once a week, or once a month.

<Example of a cleaning schedule>

(A) Daily cleaning (to be done every day)

Hand-washing stations, sinks, work surfaces, the areas around cooking ranges, floors (to be swept), drains etc.



(B) Regular cleaning (to be done once a week)

Insides of fridges/freezer, insides of ducts, floors (to be swept with a stiff deck brush), grease traps etc.

(C) Regular cleaning (to be done once a month)

Walls, lights, places that are not normally cleaned etc.

(3) Waste disposal

Kitchen waste (garbage) needs to be sorted. Left-over food (food scraps and food waste) will grow bacteria if it is not properly handled. It can also attract insects and mice etc. Therefore it is important that the following controls are properly implemented.

(A) Left-over food (food scraps and food waste)

Food scraps and food waste should be placed in a dedicated container with a lid. And kept in an area where it is not going to affect work. Note that the handling of puffer fish (*fugu*) is subject to regulation; and it is a statutory obligation that any associated waste be kept in a locked container.

(B) Other garbage

Garbage needs to be sorted. For example into burnable garbage, non-burnable garbage, plastics, bottles, cans and waste oil etc. The store's local authority, or similar, will decide the rules for the respective categories. You should sort the garbage and dispose of it in accordance with those rules.



III. Knowledge of HACCP based food hygiene system

(Critical control points)

1. What are “HACCP based food hygiene system”?

HACCP is an abbreviation for “Hazard Analysis and Critical Control Point.”

Specifically it is a method of hygiene control to check the safety of key processes from the arrival of raw ingredients through to food production. A wide variety of foods (dishes) are made in restaurants; so we divide them into the following food (dish) groups.

(A) Group 1: "refrigerated foods"

(B) Group 2: “cook and serve hot”

(C) Group 3: “foods that go through heating,refrigeration,and then reheating”

We find and manage the danger points (critical control points) for the respective work processes in each of these three groups. This method of hygiene control is known as “HACCP based food hygiene system.”

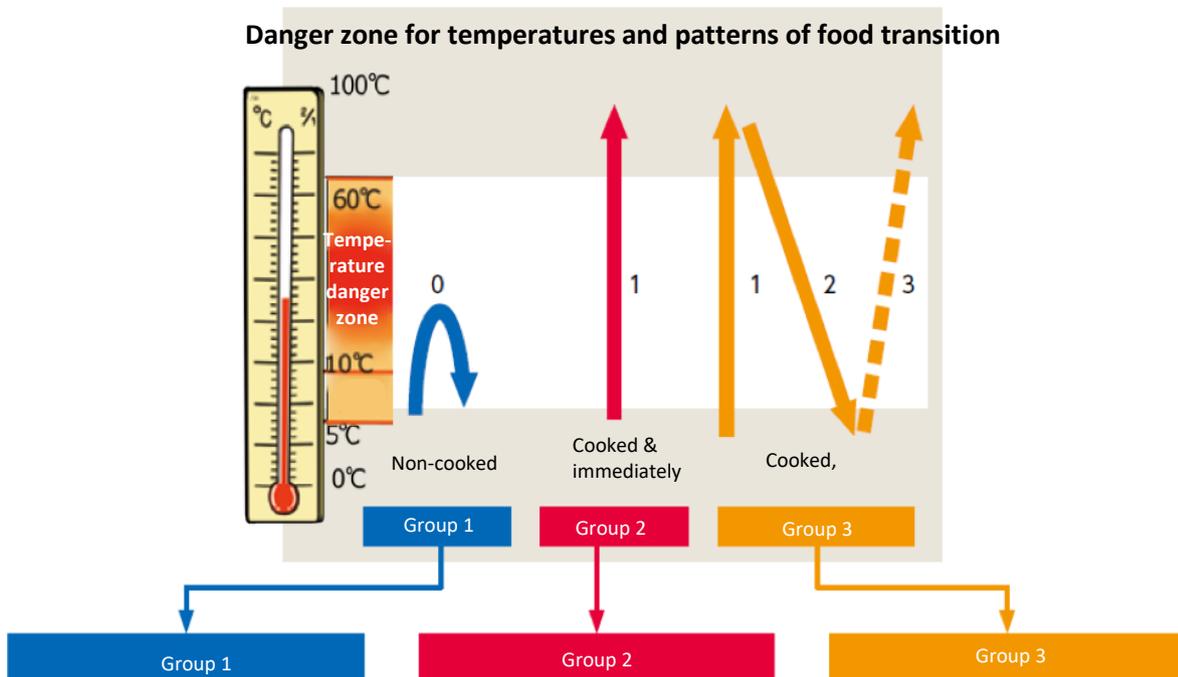
Type	Example menu
Group 1 “Refrigerated foods” (Serve chilled without heat treatment)	Sashimi, cold tofu, fresh vegetable salad etc.
Group 2 “Cook and serve hot” (Refrigerated foods served hot after cooking) (Foods stored at high temperatures after cooking)	Steak, grilled fish, grilled chicken, hamburgers, tempura, fried chicken, rice etc.
Group 3 “Foods that go through heating,refrigeration,and then reheating”	Curry, soup, sauce, soy/mirin based sauce (tare), potato salad etc.

* Reference 2 provides illustrations that describe dishes (foods) separated into these groups.

2. Critical control points

If food is left in the temperature range 10°C-60°C (the “danger zone”), the bacteria in it will quickly multiply. But bacteria will not grow enough to pose a threat to humans if it only left for a short time, even in the danger zone. Steps need to be taken, such as rapidly cooling down any food that is in the danger zone.

These kind of points, where harmful bacteria could multiply if controls are not implemented, are known as “critical control points.” These critical control points are controlled on the basis of temperature and time. And the dishes (foods) in the three separate groups each have different critical control points. Consequently, you need to control the respective times and temperatures as applicable.



Sashimi, cold tofu, fresh vegetable salad etc.

Steak, grilled fish, grilled chicken, hamburgers, tempura, fried chicken, rice etc.

Curry, soup, sauce, soy/mirin based sauce (tare), potato salad etc.

3. Group 1: How to control “refrigerated foods”

Let’s look at examples of how to control “refrigerated foods”.(Group 1)

Type	Example menu	Control methods (typical examples)
Group 1 “Refrigerated foods” (Serve chilled without heat treatment)	Sashimi, cold tofu, fresh vegetable salad etc	<ul style="list-style-type: none"> • Serve as soon as they are taken out of the fridge • Control the temperature of the fridge etc.

(I) Specific control methods

(E.G.) Fresh vegetable salad

(A) Wash the vegetables thoroughly before arranging them on a dish and serving.

(B) If you are not going to serve them immediately, then keep the washed vegetables in the fridge. Then, just before you serve them, take the washed vegetables out of the fridge, arrange them on a dish and serve them.

(II) Key points

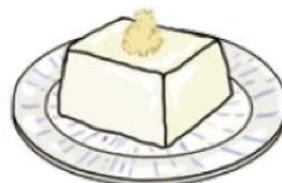
(A) Foods that are not heated do not go through any cooking (heating) process to kill off harmful bacteria. And sometimes there can be bacteria etc., in the raw ingredients. Therefore you need to wash the raw ingredients thoroughly to reduce the amount of bacteria etc. And also keep the raw ingredients in a fridge (at low temperature) to ensure that any remaining bacteria does not grow.

(B) It is important to keep the food at 10°C or below if it is going to take longer than 30 minutes to serve it.

Example of refrigerated foods



Sashimi



Cold Tofu

4. Group 2: How to control “cook and serve hot”

Let’s look at examples of how to control “cook and serve hot”(Group 2)

Type	Example menu	Control methods (typical examples)
Group 2 “Cook and serve hot” (Refrigerated foods served hot after cooking) (Foods stored at high temperatures after cooking)	Steak, grilled fish, grilled chicken, hamburgers, tempura, fried chicken, cooked rice etc.	<ul style="list-style-type: none"> ▪ Strength of the heat ▪ Appearance ▪ Color of the meat juices ▪ Cooked texture (elasticity) ▪ Core temperature etc.

(1) Specific control methods

(A) Check that the core of the food is properly cooked. For example, make sure that you know in advance how long the food should be cooked for and at what heat, how it should look (its shape and color), and what color the core should be etc. Then in your everyday cooking, check the appearance etc., to make sure it is cooked enough.

(B) There is no need to make a note each time you cook something, but you should keep a record on the result of cooking at the end of the day. Also be sure to record the details of any problems in the diary.

(2) Key points

(A) Check the internal temperature of the food(the temperature measured at the core of the food) at regular intervals. It is important to check that food is cooked at a high enough temperature to kill off any harmful bacteria etc. For example, check this if you have prepared a new dish.

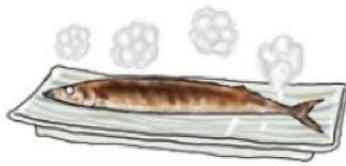
(B) Meat such as beef, pork and chicken can contain harmful bacteria. So make sure it is cooked properly.

(C) Be careful not to contaminate food (via secondary contamination) once it is cooked by serving it with dirty hands, or utensils (including tableware).

(D) Harmful bacteria in meat etc., can be killed by ensuring that the food is cooked at an internal temperature of 75°C for at least one minute.



Example of **cook and serve hot**



Grilled fish



Grilled chicken



Hamburgers



Fried chicken

5. Group 3: How to control “Foods that go through heating,refrigeration,and then reheating”

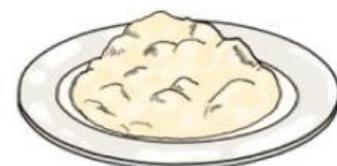
Let’s look at examples of how to control “Foods that go through heating,refrigeration,and then reheating”.(Gr

Type	Example menu	Control methods (typical examples)
Group 3 "Foods that go through heating,refrigeration,and then reheating"	Curry, soup, sauce, soy/mirin based sauce (tare),potato salad etc.	<ul style="list-style-type: none"> ▪ Cool the food immediately after it has been cooked ▪ Bring to the boil (so the food is bubbling) when reheating ▪ Appearance ▪ Core temperature etc.

Example of foods that are cooked, cooled down, then reheated



Curry



Potato Salad

(1) Specific control methods

(A) Check the cooking (heating) process as described for Group 2 above.

(B) When cooling food, try to avoid leaving it in the 10°C-60°C danger zone as much as possible. To do this, you will need to lower the food's temperature straight after it has been cooked.

(C) For example, one way of rapidly lowering the food's temperature is to divide it into small containers and put it in the fridge. Or, if you have a chiller then use it straight after the food has been cooked to bring the temperature down to 10°C or below.

(2) Key points

When cooling food after it has been cooked, try to avoid leaving it in the 10°C-60°C danger zone as much as possible.

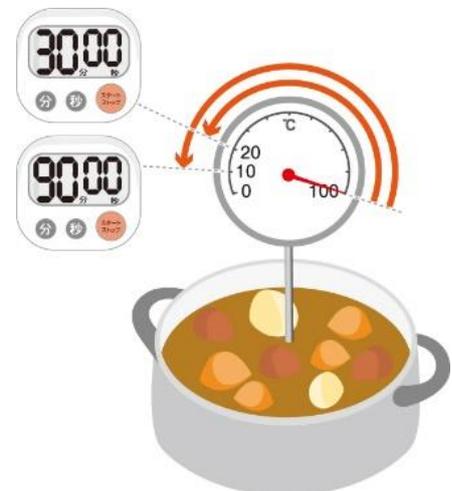
* Reference (cooling temperatures and timings)

American FDA standards state that

: food should be cooled to 21°C or below within 2 hours, and then down to 5°C or below within the next four hours

The “Manual on Hygiene Controls in Large-scale Canteens” used in Japan’s office/school canteens states that

: processes should be in place to ensure that food is cooled to 20°C or below within 30 minutes, and then down to 10°C or below within the next hour.



6. Other critical control points

There may be harmful bacteria etc., in the following raw ingredient from the time they are delivered. Therefore, the following precautions should be taken.

(1) Precautions against bacteria etc.

(A) Chicken eggs

Eggs need to be cooked with an internal temperature of 70°C for at least one minute. Note that this does not include eggs within their "best by" date for raw consumption that are to be consumed quickly (assuming that they are not cracked and leaking etc.).

(B) Seafood

If seafood is to be eaten raw (as sashimi etc.) it should be washed thoroughly in fresh water (tap water etc.). Also, remove anything that poses a risk of contamination.

(C) Cow's liver and pig's liver

Neither of these should be eaten raw. If eaten, they need to be cooked with an internal temperature of 75°C for at least one minute.

(2) Other

(A) Foreign Objects

Hard foreign objects such as metal can injure anyone who eats them. And even if they don't cause an injury, foreign objects in food can lead to a legal claim. It is always important to check that there are no foreign objects in raw materials and that none get into food while it is being prepared. Furthermore, it is important to keep the kitchen tidy and well-organized to ensure that no foreign objects get into the food.

<Types of Foreign Objects>

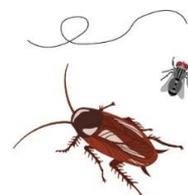
• Hard foreign objects

: pieces of metal, bits of plastic, glass shards and stones etc.



• Soft foreign objects

: Hair, scraps of paper, bits of vinyl plastic, insects etc.



* Foreign objects that make customers feel ill (such as insects etc.) are also called "unpleasant foreign objects."

(B) Anisakis (parasite)

Anisakis can infest seafood such as mackerel, sardines, skipjack tuna, salmon, squid, saury and jack mackerel. If anisakis-infested seafood is eaten, it results in food poisoning with severe stomach ache. The following precautions should be taken to prevent anisakis food poisoning.

- Select fresh fish and gut it immediately.

- The anisakis parasite is big enough to be seen with naked eye. So, do a visual check to make sure there are no anisakis parasites in the fish.

- Anisakis live in the internal organs. Do not serve internal fish organs raw.

- Freeze fish for at least 24 hours at -20°C or below. Or cook for at least 1 minute at 60°C , or at a temperature of 70°C or above.

7. Keeping a record of hygiene controls

Keep a record of hygiene controls that have been checked. If you keep a record, then checks can be carried out to ensure that hygiene controls are being properly conducted. It also has the following benefits.

- (1) It clarifies hygiene control points. And this helps to prevent food poisoning.
- (2) It provides proof that hygiene controls were properly conducted if any problems arise.
- (3) You can confidently tell your health center and your customers that your restaurant has proper hygiene controls in place.
- (4) You can see improvements to be made in work operations.

Reference 3 shows a typical format and the example entries used in a Hygiene Control Plan in the average restaurant.

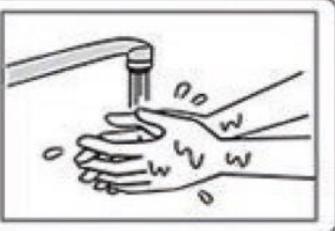
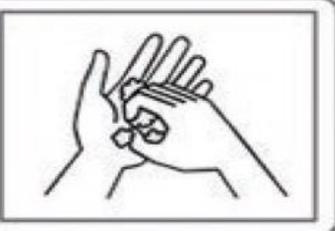
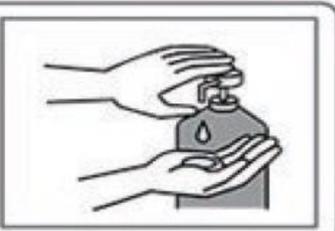
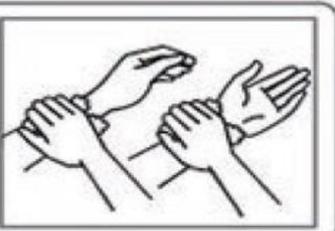
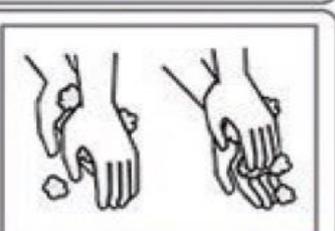
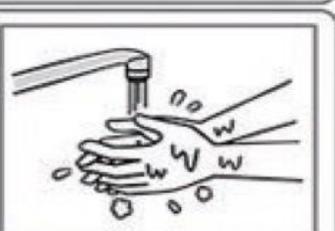
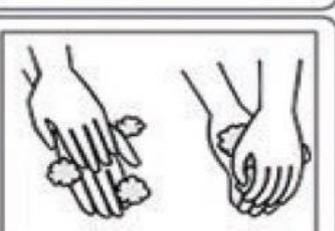
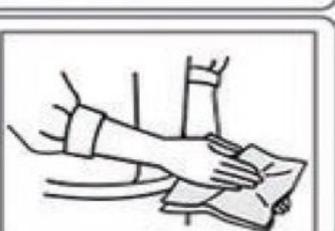
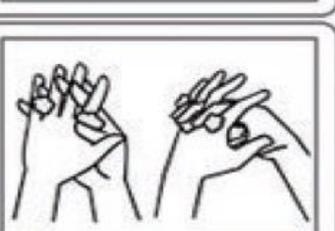
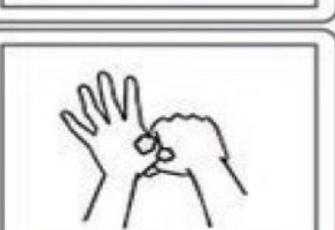
Reference 4 shows a typical format and the example entries used in a Hygiene Control Record in the average restaurant.

IV. References

■ Reference 1: Sanitary hand-washing technique recommended by the Japan Food Hygiene Association

Sanitary hand-washing technique recommended by the Japan Food Hygiene Association

- Basic hand-washing procedures -

<p>1</p> <p>Wash your hands under running water</p>		<p>7</p> <p>Wash your fingertips</p>	
<p>2</p> <p>Take the detergent in your hands</p>		<p>8</p> <p>Wash your wrists</p>	
<p>3</p> <p>Wash your palms and the front of your fingers</p>		<p>9</p> <p>Rinse off the detergent with plenty of running water</p>	
<p>4</p> <p>Wash the back of your hands and the back of your fingers</p>		<p>10</p> <p>Wipe your hands dry</p> <p><i>(Do not use the towel for joint purposes)</i></p>	
<p>5</p> <p>Wash the skin in between your fingers (at the side) and at the bottom (base)</p>		<p>11</p> <p>Disinfect with an alcohol solution</p> <p><i>(put it directly onto the base of the nails and around the nails, then rub it well into all of the finger)</i></p>	
<p>6</p> <p>Wash your thumbs and the base of your thumbs</p>		<p>Washing your hands twice produces the best results! (repeat steps 2-9 above) Wash twice to wash away any bacteria or viruses.</p>	

■ Reference 2: Examples of foods separated into groups

Group 1: "Foods that are not heated"

Group 2: "Foods that are heated"

Group 3: "Foods that are cooked, cooled down, then reheated"



Source: "Handbook on Food Hygiene Controls Incorporating HACCP Concepts (a guide for restaurants)" published by the Ministry of Health, Labour and Welfare

■ Reference 3: Hygiene Control Plans used in the average restaurant (an example of the format and descriptions)

General hygiene control points (reference format)

General hygiene control points			
(I)	Checks when taking delivery of raw ingredients	When	When raw ingredients are delivered / other ()
		How	
		Any problems	
(II)	Checks on internal temperatures (in fridges/freezers)	When	Before start of business / during work hours / after end of business / other ()
		How	
		Any problems	
(III)-1	Prevention of cross contamination and secondary contamination	When	Before start of business / during work hours / after end of business / other ()
		How	
		Any problems	
(III)-2	Cleaning, disinfecting and sterilizing cooking utensils etc.	When	Time of delivery of raw ingredients / other ()
		How	
		Any problems	
(III)-3	Cleaning and disinfecting toilets	When	Before start of business / during work hours / after end of business / other ()
		How	
		Any problems	
(IV)-1	Employee health management etc.	When	Before start of business / during work hours / after end of business / other ()
		How	
		Any problems	
(IV)-2	Implementation of hand-washing	When	After going to the toilet, before entering the kitchen, before serving food, when changing work details, after handling raw meat or fish etc., after handling cash, after cleaning up, other ()
		How	
		Any problems	

Source: "Handbook on Hygiene Controls Incorporating HACCP Concepts" published by the Japan Food Hygiene Association

General hygiene control points (typical descriptions)

General hygiene control points			
(I)	Checks when taking delivery of raw ingredients	When	When raw ingredients are delivered / other ()
		How	Check the appearance, smell, condition of the packaging and the labels (for expiry date and storage method)
		Any problems	Returns, exchanges
(II)	Checks on internal temperatures (in fridges/freezers)	When	Before start of business / during work hours / after end of business / other ()
		How	Thermometer Checks on internal temperatures (10°C or lower in fridges, -15°C or lower in freezers)
		Any problems	Check the cause of the abnormality, re-set the temperature setting/or request a repair in the event of a break-down Depending on the state of the ingredients either do not use them, or cook them before serving.
(III)-1	Prevention of cross contamination and secondary contamination	When	Before start of business / during work hours / after end of business / other ()
		How	Check how things are stored in the fridge Keep the use of utensils, such as chopping boards and knives etc, separate. Make sure things are cleaned and sterilized after they have been used.
		Any problems	Re-wash using detergent and sterilize
(III)-2	Cleaning, disinfecting and sterilizing cooking utensils etc.	When	Before start of business / during work hours / after end of business / other ()
		How	Wash and sterilize kitchen utensils such as chopping boards and kitchen knives etc., each time they are used.
		Any problems	Re-wash using detergent and sterilize
(III)-3	Cleaning and disinfecting toilets	When	Before start of business / during work hours / after end of business / other ()
		How	Clean and disinfect the toilets Pay particular attention to the toilet seat, flush handle and door knob etc.
		Any problems	Re-wash using detergent and sterilize
(IV)-1	Employee health management etc.	When	Before start of business / during work hours / other ()
		How	Check employees' physical condition, whether there are any cuts on their hands, and what they are wearing etc.
		Any problems	Do not allow an employee to prepare food if he/she has any symptoms of an upset stomach. Put a bandage on any cuts and wear gloves if there are any cuts on hands. Change any work clothes that are soiled
(IV)-2	Implementation of hand-washing	When	After going to the toilet, before entering the kitchen, before serving food, after handling raw meat or fish etc., when changing work details, after handling cash, after cleaning up, other ()
		How	Wash hands according to the procedures
		Any problems	Re-wash hands according to the procedures

Source: "Handbook on Hygiene Controls Incorporating HACCP Concepts" published by the Japan Food Hygiene Association

Critical control points (reference format)

(V) Critical control points		
Category	Dishes	Checking method
Non-cooked foods (Refrigerated products that are served cold)		
Cooked foods (Refrigerated products that are heated and served hot)		
(Food that are cooked and then kept at a hot temperature)		
Foods that are cooked, cooled down and then reheated		
(Foods that are cooled after they have been cooked)		

Source: "Handbook on Hygiene Controls Incorporating HACCP Concepts" published by the Japan Food Hygiene Association

Critical control points (typical descriptions)

(V) Critical control points		
Category	Typical dishes	Checking method
Non-cooked foods (Refrigerated products that are served cold)	Sashimi, cold tofu,	Serve as soon as they are taken out of the fridge
Cooked foods (Refrigerated products that are heated and served hot)	Hamburgers Grilled fish Fried chicken	Measure the temperature regularly and check how strong the heat is, the temperature of the oil, cooking times, meat juices, and how the cooking is looking etc.
(Food that are cooked and then kept at a hot temperature)	Fried chicken, cooked rice	Measure the temperature regularly
Foods that are cooked, cooled down and then reheated	Curry	Cool down quickly and make sure the food is reheated properly (always measure the temperature)
(Foods that are cooled after they have been cooked)	Potato salad	

Source: "Handbook on Hygiene Controls Incorporating HACCP Concepts" published by the Japan Food Hygiene Association

■ Reference 4: Hygiene Control Records used in the average restaurant (an example of the format and descriptions)

General hygiene control record (reference format)

Category	(I) Checks when taking delivery of raw ingredients	(II) Checks on internal temperatures fridges/freezers (°C)	(III)-1 Prevention of cross contamination and secondary contamination	(III)-2 Cleaning, disinfecting and sterilizing of cooking utensils etc.	(III)-3 Cleaning and disinfecting of toilets	(IV)-1 Employee health management etc.	(IV)-2 Implementation of hand-washing	Daily checks	Special notes	Checked by (name of supervisor)
Day 1	Good/Not acceptable		Good/Not acceptable	Good/Not acceptable	Good/Not acceptable	Good/Not acceptable	Good/Not acceptable			
Day 2	Good/Not acceptable		Good/Not acceptable	Good/Not acceptable	Good/Not acceptable	Good/Not acceptable	Good/Not acceptable			
Day 3	Good/Not acceptable		Good/Not acceptable	Good/Not acceptable	Good/Not acceptable	Good/Not acceptable	Good/Not acceptable			
Day 4	Good/Not acceptable		Good/Not acceptable	Good/Not acceptable	Good/Not acceptable	Good/Not acceptable	Good/Not acceptable			
Day 5	Good/Not acceptable		Good/Not acceptable	Good/Not acceptable	Good/Not acceptable	Good/Not acceptable	Good/Not acceptable			
Day 6	Good/Not acceptable		Good/Not acceptable	Good/Not acceptable	Good/Not acceptable	Good/Not acceptable	Good/Not acceptable			
Day 7	Good/Not acceptable		Good/Not acceptable	Good/Not acceptable	Good/Not acceptable	Good/Not acceptable	Good/Not acceptable			
Day 8	Good/Not acceptable		Good/Not acceptable	Good/Not acceptable	Good/Not acceptable	Good/Not acceptable	Good/Not acceptable			
Day 9	Good/Not acceptable		Good/Not acceptable	Good/Not acceptable	Good/Not acceptable	Good/Not acceptable	Good/Not acceptable			
Day 10	Good/Not acceptable		Good/Not acceptable	Good/Not acceptable	Good/Not acceptable	Good/Not acceptable	Good/Not acceptable			
Day 11	Good/Not acceptable		Good/Not acceptable	Good/Not acceptable	Good/Not acceptable	Good/Not acceptable	Good/Not acceptable			
Day 12	Good/Not acceptable		Good/Not acceptable	Good/Not acceptable	Good/Not acceptable	Good/Not acceptable	Good/Not acceptable			
Day 13	Good/Not acceptable		Good/Not acceptable	Good/Not acceptable	Good/Not acceptable	Good/Not acceptable	Good/Not acceptable			
Day 14	Good/Not acceptable		Good/Not acceptable	Good/Not acceptable	Good/Not acceptable	Good/Not acceptable	Good/Not acceptable			
Day 15	Good/Not acceptable		Good/Not acceptable	Good/Not acceptable	Good/Not acceptable	Good/Not acceptable	Good/Not acceptable			

Source: "Handbook on Hygiene Controls Incorporating HACCP Concepts" published by the Japan Food Hygiene Association

General hygiene control record (typical descriptions)

Category	(I) Checks when taking delivery of raw ingredients	(II) Checks on internal temperatures fridges/freezers (°C)	(III)-1 Prevention of cross contamination and secondary contamination	(III)-2 Cleaning, disinfecting and sterilizing of cooking utensils etc.	(III)-3 Cleaning and disinfecting of toilets	(IV)-1 Employee health management etc.	(IV)-2 Implementation of hand-washing	Daily checks	Special notes	Checked by (name of supervisor)
Day 1	Good/Not acceptable	4, -16	Good/Not acceptable	Good/Not acceptable	Good/Not acceptable	Good/Not acceptable	Good/Not acceptable	by Hanako	April 1 (a.m.) Bag of flour broken - it was replaced	
Day 2	Good/Not acceptable	9, -23	Good/Not acceptable	Good/Not acceptable	Good/Not acceptable	Good/Not acceptable	Good/Not acceptable	by Hanako	April 2 (noon) A went to the toilet and didn't wash his/her hands	
Day 3	Good/Not acceptable	15, -23 → back to 10°C	Good/Not acceptable	Good/Not acceptable	Good/Not acceptable	Good/Not acceptable	Good/Not acceptable	by Hanako	April 3 (11 a.m.) The temperature in the fridge was high	
Day 4	Good/Not acceptable	4, -16	Good/Not acceptable	Good/Not acceptable	Good/Not acceptable	Good/Not acceptable	Good/Not acceptable	by Hanako	- 20 minutes later it was no more than 10°C	
Day 5	Good/Not acceptable	8, -18	Good/Not acceptable	Good/Not acceptable	Good/Not acceptable	Good/Not acceptable	Good/Not acceptable	by Hanako		
Day 6	Good/Not acceptable		Good/Not acceptable	Good/Not acceptable	Good/Not acceptable	Good/Not acceptable	Good/Not acceptable			
Day 7	Good/Not acceptable		Good/Not acceptable	Good/Not acceptable	Good/Not acceptable	Good/Not acceptable	Good/Not acceptable			
Day 8	Good/Not acceptable		Good/Not acceptable	Good/Not acceptable	Good/Not acceptable	Good/Not acceptable	Good/Not acceptable			
Day 9	Good/Not acceptable		Good/Not acceptable	Good/Not acceptable	Good/Not acceptable	Good/Not acceptable	Good/Not acceptable			
Day 10	Good/Not acceptable		Good/Not acceptable	Good/Not acceptable	Good/Not acceptable	Good/Not acceptable	Good/Not acceptable			
Day 11	Good/Not acceptable		Good/Not acceptable	Good/Not acceptable	Good/Not acceptable	Good/Not acceptable	Good/Not acceptable			
Day 12	Good/Not acceptable		Good/Not acceptable	Good/Not acceptable	Good/Not acceptable	Good/Not acceptable	Good/Not acceptable			
Day 13	Good/Not acceptable		Good/Not acceptable	Good/Not acceptable	Good/Not acceptable	Good/Not acceptable	Good/Not acceptable			
Day 14	Good/Not acceptable		Good/Not acceptable	Good/Not acceptable	Good/Not acceptable	Good/Not acceptable	Good/Not acceptable			
Day 15	Good/Not acceptable		Good/Not acceptable	Good/Not acceptable	Good/Not acceptable	Good/Not acceptable	Good/Not acceptable			

Source: "Handbook on Hygiene Controls Incorporating HACCP Concepts" published by the Japan Food Hygiene Association

Critical control record (reference format)

Category	Non-cooked/foods (Refrigerated products that are served cold)	Cooked foods (Refrigerated products that are heated and served hot)	(Food that are cooked and then kept at a hot temperature)	Foods that are cooked, cooled down and then reheated	(Foods that are cooled after they have been cooked)	Daily checks		Special notes	Checked by (name of supervisor)
Dishes									
Day 1	Good/Not acceptable	Good/Not acceptable	Good/Not acceptable	Good/Not acceptable	Good/Not acceptable	Good/Not acceptable			
Day 2	Good/Not acceptable	Good/Not acceptable	Good/Not acceptable	Good/Not acceptable	Good/Not acceptable	Good/Not acceptable			
Day 3	Good/Not acceptable	Good/Not acceptable	Good/Not acceptable	Good/Not acceptable	Good/Not acceptable	Good/Not acceptable			
Day 4	Good/Not acceptable	Good/Not acceptable	Good/Not acceptable	Good/Not acceptable	Good/Not acceptable	Good/Not acceptable			
Day 5	Good/Not acceptable	Good/Not acceptable	Good/Not acceptable	Good/Not acceptable	Good/Not acceptable	Good/Not acceptable			
Day 6	Good/Not acceptable	Good/Not acceptable	Good/Not acceptable	Good/Not acceptable	Good/Not acceptable	Good/Not acceptable			
Day 7	Good/Not acceptable	Good/Not acceptable	Good/Not acceptable	Good/Not acceptable	Good/Not acceptable	Good/Not acceptable			
Day 8	Good/Not acceptable	Good/Not acceptable	Good/Not acceptable	Good/Not acceptable	Good/Not acceptable	Good/Not acceptable			
Day 9	Good/Not acceptable	Good/Not acceptable	Good/Not acceptable	Good/Not acceptable	Good/Not acceptable	Good/Not acceptable			
Day 10	Good/Not acceptable	Good/Not acceptable	Good/Not acceptable	Good/Not acceptable	Good/Not acceptable	Good/Not acceptable			
Day 11	Good/Not acceptable	Good/Not acceptable	Good/Not acceptable	Good/Not acceptable	Good/Not acceptable	Good/Not acceptable			
Day 12	Good/Not acceptable	Good/Not acceptable	Good/Not acceptable	Good/Not acceptable	Good/Not acceptable	Good/Not acceptable			
Day 13	Good/Not acceptable	Good/Not acceptable	Good/Not acceptable	Good/Not acceptable	Good/Not acceptable	Good/Not acceptable			

Source: "Handbook on Hygiene Controls Incorporating HACCP Concepts" published by the Japan Food Hygiene Association

Critical control record (typical descriptions)

Category	Non-cooked foods (Refrigerated products that are served cold)	Cooked foods: (Refrigerated products that are heated and served hot)	(Food that are cooked and then kept at a hot temperature)	Foods that are cooked, cooled down and then reheated	(Foods that are cooled after they have been cooked)	Daily checks	Special notes	Checked by (name of supervisor)
Dishes	Sashimi, cold tofu,	Hamburgers Grilled fish Fried chicken	Fried chicken Cooked rice	Curry	Potato salad		4/1 There was a claim that the inside of a hamburger was red. When we asked B, who cooked the hamburger, it turned out that he/she was in a hurry and did not check the temperature. → B was instructed to check the temperature properly	
Day 1	Good/ Not acceptable	Good/ Not acceptable	Good/ Not acceptable	Good/ Not acceptable	Good/ Not acceptable			
Day 2	Good/ Not acceptable	Good/ Not acceptable	Good/ Not acceptable	Good/ Not acceptable	Good/ Not acceptable			
Day 3	Good/ Not acceptable	Good/ Not acceptable	Good/ Not acceptable	Good/ Not acceptable	Good/ Not acceptable			
Day 4	Good/ Not acceptable	Good/ Not acceptable	Good/ Not acceptable	Good/ Not acceptable	Good/ Not acceptable			
Day 5	Good/ Not acceptable	Good/ Not acceptable	Good/ Not acceptable	Good/ Not acceptable	Good/ Not acceptable			
Day 6	Good/ Not acceptable	Good/ Not acceptable	Good/ Not acceptable	Good/ Not acceptable	Good/ Not acceptable			
Day 7	Good/ Not acceptable	Good/ Not acceptable	Good/ Not acceptable	Good/ Not acceptable	Good/ Not acceptable			
Day 8	Good/ Not acceptable	Good/ Not acceptable	Good/ Not acceptable	Good/ Not acceptable	Good/ Not acceptable			
Day 9	Good/ Not acceptable	Good/ Not acceptable	Good/ Not acceptable	Good/ Not acceptable	Good/ Not acceptable			
Day 10	Good/ Not acceptable	Good/ Not acceptable	Good/ Not acceptable	Good/ Not acceptable	Good/ Not acceptable			
Day 11	Good/ Not acceptable	Good/ Not acceptable	Good/ Not acceptable	Good/ Not acceptable	Good/ Not acceptable			
Day 12	Good/ Not acceptable	Good/ Not acceptable	Good/ Not acceptable	Good/ Not acceptable	Good/ Not acceptable			
Day 13	Good/ Not acceptable	Good/ Not acceptable	Good/ Not acceptable	Good/ Not acceptable	Good/ Not acceptable			

Source: "Handbook on Hygiene Controls Incorporating HACCP Concepts" published by the Japan Food Hygiene Association

< Afterword >

This material on "Hygiene Controls" refers to the "Handbook on HACCP Based Food Hygiene System(for small restaurant businesses)" published by the Japan Food Hygiene Association and have been created to be easily understood by non-Japanese. In addition, the illustrations used in this material have been taken from the "Handbook on Food Hygiene Controls Incorporating HACCP Concepts (a guide for restaurants)" published by the Ministry of Health, Labour and Welfare.

Restaurant companies, restaurant associations and contributors with an academic background have all helped in creating this material on "Hygiene Controls", which have been put together by the Japan Foodservice Association.

And once again we would like to offer our thanks to everyone who helped create the material.

March 2019

Japan Foodservice Association

< Matters to Note >

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