

For EPIPEN® users and their families

Carry it just to be safe

Be prepared for anaphylaxis



EPIPEN® Guidebook



[Editorial supervisor]

Dr. Motohiro Ebisawa

Director of Clinical Research Center for Allergy and Rheumatology
National Hospital Organization Sagamihara Hospital

***Please be sure to follow your doctor's instructions on how to use EPIPEN®.**

What is anaphylaxis?

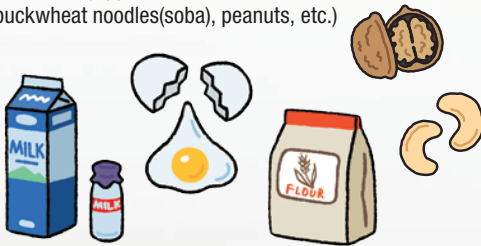
It is a **severe, acute allergic reaction involving the whole body in a short period of time.**

An allergy is a condition causing various symptoms such as itch, sneezing, irritation, by overreacting “immunity”, a mechanism to protect human body from foreign substances. Anaphylaxis is a severe, acute allergic reaction involving the whole body, usually occurring within minutes to several tens of minutes after exposure to the trigger (allergen).

● Typical causes of anaphylaxis (allergens)

Eating food

(Egg, milk, wheat, buckwheat noodles(soba), peanuts, etc.)



Insect stings to bring toxic substances into body

(Yellow hornets, paper wasps, honeybees, etc.)



Medication

(Antibiotics, antifebrile/analgesic drugs, vaccines, anesthetic drugs, etc.)



*In addition, anaphylaxis may be caused by **latex products** (natural rubber gloves, etc.) or **exercise**.



Anaphylaxis may lead to **anaphylactic shock**, which can be **life-threatening**.

Anaphylaxis causes various symptoms.

They change rapidly and may lead to a state called “anaphylactic shock”, in which blood pressure drops and leads to shock symptoms such as impaired consciousness and life-threatening status. Therefore, paying close attention is necessary.

● Main symptoms of anaphylaxis

Skin/mucosal symptoms	Flushing, itching, urticaria, angioedema, morbilliform rash, piloerection, conjunctival hyperemia, lacrimation, and intraoral swelling
Respiratory symptoms	Nasal itching, nasal congestion, nasal discharge, sneezing, itchy throat, throat tightness, vocal disorder, hoarseness, stridor, and intermittent dry cough. Lower respiratory tract: increased respiratory rate, shortness of breath, chest tightness, intense cough, wheezing/bronchospasm, cyanosis, and respiratory arrest
Digestive symptoms	Abdominal pain, nausea, vomiting, diarrhea, and dysphagia
Cardiovascular symptoms	Chest pain, tachycardia, bradycardia (rare), other arrhythmias, palpitation, drop in blood pressure, syncope, incontinence, shock, and cardiac arrest
Central nervous system symptoms	Feeling of impending doom, anxiety (sudden behavioral changes in infants or toddlers, such as becoming irritable, stopping playing, and clinging to their parents), throbbing headache (before adrenaline administration), restlessness, dizziness, and tunnel vision

Symptoms are taken from the "Anaphylaxis Guidelines 2022" published by the Japanese Society of Allergology ("Table 10. Clinical Findings" on p.17).

● Anaphylactic shock

Drop in blood pressure



Difficulty breathing



Loss of consciousness



Anaphylactic shock is a life-threatening condition.

Unexpected risks of anaphylaxis

The majority of anaphylactic episodes in children are caused by food. It is therefore most important to consult with a doctor first to have the causative food (allergens) ascertained and then to avoid such food in accordance with the instructions of the doctor. However, it may be impossible to avoid food allergens at preschool, kindergarten and elementary school.

Actions taken by schools to prevent food allergy reactions

To build an environment that enables children with allergic diseases to be safe and comfortable at school (where they spend many hours), schools are advised to take measures based on the school life management guidance table (for allergic diseases)*. The tables should be completed by the physicians caring for such children and submitted to schools by their parents (the medical fee system was revised in 2022: The expense is covered by insurance when the school life management guidance table is submitted to a school doctor**). Schools then collect accurate information on the children's food allergies, determine the measures to be taken for school meals by interviewing parents, remind all school personnel of the risk, and develop a system in case of emergency, etc.

Example: School life management guidance table (for allergic diseases)

- *School life management guidance table (https://www.gakkohoken.jp/book/ebook/ebook_R010100/R010100.pdf)
- **School life management guidance table for allergic diseases issued by authorized insurance medical institutions showing what is covered by insurance (https://www.gakkohoken.jp/book/ebook/ebook_R010100/20220401.pdf)
- ※For the life management guidance table for allergic diseases at preschool (food allergies, anaphylaxis, and bronchial asthma), please visit the following website:
URL: https://www.cfa.go.jp/assets/contents/node/basic_page/field_ref_resources/e4b817c9-5282-4ccc-b0d5-ce15d7b5018c/1bd0041a/20231016_policies_hoiku_38.pdf

From "Guidelines on Measures to be Taken for Allergies at Schools" (Revised in 2019): https://www.gakkohoken.jp/book/ebook/ebook_R010060/R010060.pdf



● Potential situation causing anaphylaxis beyond parental supervision

Field trip, overnight school trips
e.g. School trip, summer camp, etc.



School meals

e.g. Tasting, refill, etc.



Sports day



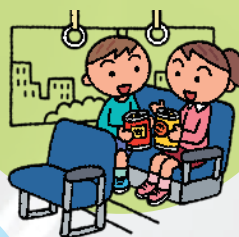
Home nomics class

Cooking egg, etc.



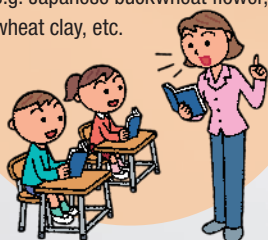
On the way to and from school

e.g. Trading snacks, etc.



Art and science classes

e.g. Japanese buckwheat flower, wheat clay, etc.



Birthday party, rummage sales







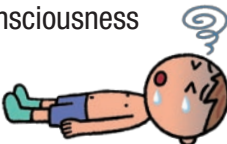
What is EPIPEN®?

EPIPEN® is a self-injection drug that administers adrenalin to be used when anaphylaxis occurs to temporarily delay progression of symptoms and prevent anaphylactic shock until treatment by a physician.



Any of the following symptoms Upon, inject EPIPEN® and call an ambulance as soon as possible.

● Symptoms EPIPEN® should be used

<p>Digestive symptoms</p>	<ul style="list-style-type: none"> ● Repeated vomiting 	<ul style="list-style-type: none"> ● Persistent severe (unbearable) abdominal pain 
<p>Respiratory symptoms</p>	<ul style="list-style-type: none"> ● Tightness in throat or chest ● Hoarseness ● Barking cough 	<ul style="list-style-type: none"> ● Persistent intense coughing ● Wheezing ● Difficulty breathing 
<p>Systemic symptoms</p>	<ul style="list-style-type: none"> ● Pale lips and nails ● Weak/irregular pulse ● Loss of bladder or bowel control 	<ul style="list-style-type: none"> ● Clouding of consciousness ● Unconscious 

Excerpt from Anaphylaxis Responses: Indications for EPIPEN® for General Public by the Japanese Society of Pediatric Allergy and Clinical Immunology Working Group <https://www.jspaci.jp/gcontents/epipen/> browsed September 27, 2024

Anaphylaxis caused by food is reported to cause respiratory or cardiac arrest in only **30 minutes**.

● Time from onset of anaphylaxis caused by food to respiratory or cardiac arrest (median) [Overseas data]

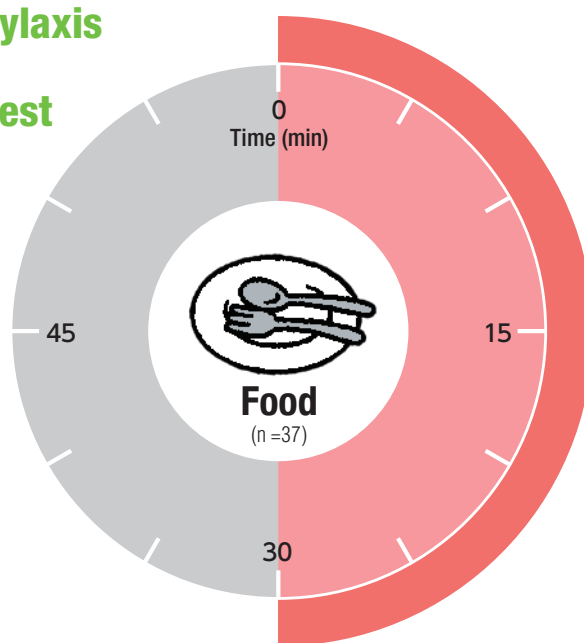
[Study overview]

Subjects:
124 patients with anaphylaxis, including deaths, registered at the Office for National Statistics (ONS, UK) in 1992-1998.

Method:
Based on findings from medical histories, shock reactions, autopsy, etc. of patients with fatal anaphylaxis, including death, time from onset of anaphylaxis to respiratory or cardiac arrest, timing of adrenalin use, prognosis, etc. were surveyed.

Result:
Time from onset of anaphylaxis due to food allergy to respiratory or cardiac arrest: median 30 min (range 4-120 minutes)

Chart created based on: Pumphrey, R. S. H.: Clin Exp Allergy 30(8): 1144, 2000



Keep in mind that **symptoms like the following** may occur after EPIPEN[®] is injected.

● Major side effects of EPIPEN[®]

- | | | |
|-------------------|---------------------|--------------------------|
| ■ Palpitation | ■ Headache | ■ Dizziness |
| ■ Anxiety | ■ Tremor | ■ Symptom of sensitivity |
| ■ Nausea/Vomiting | ■ Sensation of heat | ■ Sweating |
- etc.

The following symptoms may rarely be observed: difficulty breathing, increased pulse rate, and arrhythmia.

In such a case, stop using EPIPEN[®] and see a doctor promptly.

Consult a doctor or pharmacist when any concerning symptoms other than those mentioned above are seen.

What kind of medicine is EPIPEN®?

EPIPEN® is a self-injection drug product with improved safety, **no needle exposed** before and after use.

● Features of EPIPEN®

Blue safety cap

Safety feature to improve visibility and prevent unintentional injection

Ergonomically-designed, easy-to-grasp grip

Allows for a firm grip and easy handling

Easy-to-understand, illustrated instructions

Large illustration allows for rapid understanding of how to use

Easy-to-open, one-step, push-up carrying case

Designed for one-hand opening



Built-in orange-colored needle cover

No needle exposure before and after use (improved safety)

Before use

After use



Bright orange-colored tip

Allow to easily recognize needle tip

Check

Never disassemble the main body of EPIPEN® as this may result in accidental injection.

Please instruct patients to properly manage their EPIPEN® on a regular basis **so that it is always ready for use** in case of anaphylaxis.

● Storage and Carrying of your EPIPEN®

● So you can use it anytime ...

Keep EPIPEN® within reach at home



Carry EPIPEN® with you whenever leaving home



● How to store your EPIPEN®

Store and carry EPIPEN® in the carrying case



Do not leave EPIPEN® at high temperatures under direct sunlight or in a vehicle during summer.

Store EPIPEN® Preferably at 15-30°C



Do not keep it in a cold place (e.g. in a refrigerator). Do not use EPIPEN® stored over 30°C.

Keep EPIPEN® out of reach of small children



● Precautions when carrying EPIPEN® with you

- As EPIPEN® is made of plastic and if you drop it on a hard surface such as concrete, it may be damaged.
- If you would like to bring EPIPEN® in a plane, notify the airline upon reservation that you will be carrying EPIPEN® in the plane with you to avoid troubles at checking in.

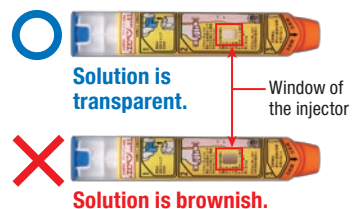
● Tips for carrying EPIPEN® around in summer

- [Examples]
- Put it in a cooler bag (Note: we do not provide any accompanying cooler bag)
 - Keep it in a bag with refrigerant stored in a refrigerator and wrapped in a towel (frozen refrigerant can chill EPIPEN® too much).
 - With no refrigerant, keep it in a bag with a plastic bottle of cold beverage.

Note that we do not guarantee you can keep EPIPEN® below 30°C with the above-mentioned measures. Also, please be aware of the possibility of causing failure of EPIPEN® by cooling rapidly.

Check

Regularly check EPIPEN® if the drug solution visible through the window of the injector becomes discolored or has any deposits. In such a case, immediately get a prescription for another EPIPEN®.



What can I do for anaphylaxis symptoms

Diagnosis by a physician and periodical consultations are important

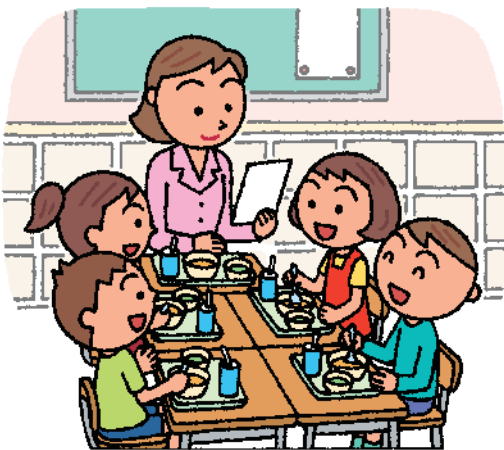
The basis of dietary management is to avoid (remove) foods that trigger allergic reactions (allergen). However, unnecessary removal of foods should be avoided. In fact, I have seen many parents who avoid foods more than necessary based on self-judgment. To ensure minimal food avoidance and those children's necessary nutrition and improve quality of life of your child, parents should consult with a doctor to have the allergen(s) determined accurately and take the best course of action.

Parents may worry about their children because of the restrictions on what they can eat or because their children cannot eat what other students eat. However, food allergies tend to fade with age, therefore parents should have their children regularly checked for changes in their allergies to confirm if they have become able to eat those foods.

There are still many foods people with food allergies can eat. With seasonal vegetables and fish, you can have an enjoyable diet even without eggs, milk and wheat. With balanced meals, try to make children's daily diet enjoyable.



“Preparing” anaphylactic symptoms



When children start to attend preschool, kindergarten and elementary school, they will spend much of time beyond parents' supervision. It is necessary for parents and schools to share accurate information, based on consultations with a doctor, on what foods should be avoided, emergency responses etc.

However, no matter how careful, there is still risk for those children of accidentally being exposed to causative foods with school meals etc. Therefore it is important to carry an EpiPEN® at all times to be prepared for especially developing anaphylactic symptoms.



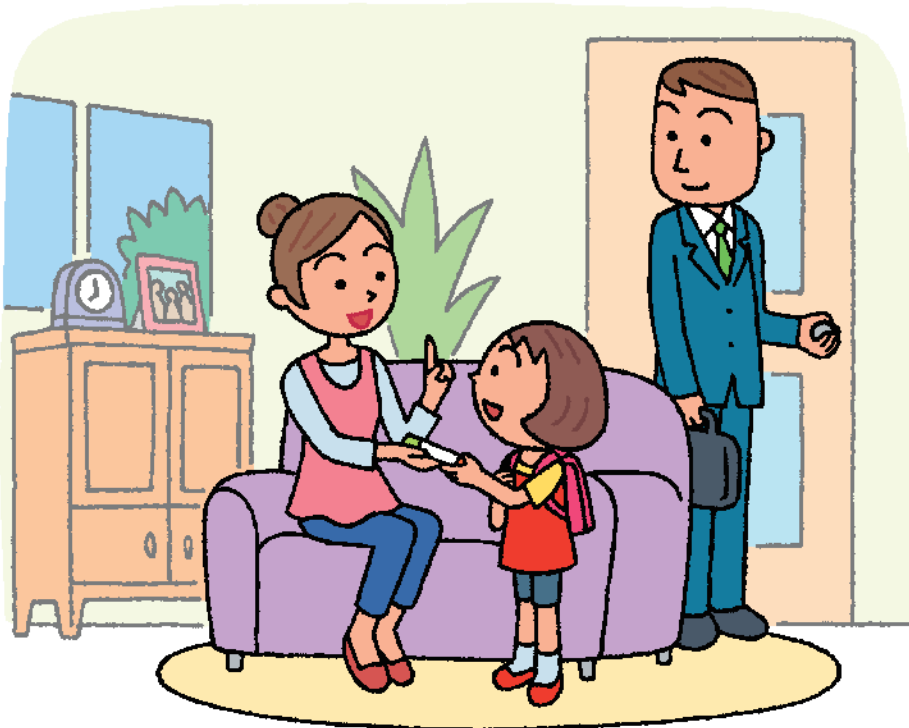
Repeat practicing with EPIPEN® Trainer on regular basis

Since EPIPEN® is an injection, some people may feel scared or hesitate to use it. However, the active ingredient contained in EPIPEN® is a naturally occurring hormone secreted in our body (adrenalin*). You may have experienced your heart beating faster when you get very angry, excited or nervous. This is due to adrenalin. Your heart rate usually returns to normal after 15 minutes or so. This is also true for EPIPEN®. In about 15 minutes after injecting EPIPEN®, you should feel normal again. This is such a medicine.

EPIPEN® is expected to help save those children's lives in an emergency. Therefore, it is also important to practice using EPIPEN® regularly with the "EPIPEN® Trainer". Making sure those children always carries their EPIPEN® will give you piece of mind to watch they grow.

* : Adrenalin is a hormone secreted by an organ called adrenal gland when we're angry, excited, or nervous and it helps us in case of emergencies.

*School Health: Allergy Disease Initiatives Q&A
(<https://www.gakkohoken.jp/themes/archives/40#q14>) (refer to the version prepared on September 27, 2024)



Actions to be taken in cases of anaphylaxis

Once you see **any of symptoms for which EPIPEN[®] should be used (see P.5), inject EPIPEN[®] into the anterolateral (front-outer side) of your thigh and call an ambulance immediately.**

● Actions to be taken in cases of anaphylaxis



Inject EPIPEN[®] into the muscle of the front-outer thigh.

In case of unconsciousness or loss of consciousness.



Lay the child down on their back, keeping their feet raised.

In case of nausea or vomiting.



Lay the child on their side.

In case of difficulty breathing and unable to lay on the back.



Put the child in a seated position, leaning back.

Illustration created based on: Simons, F. E. R. et al.: J Allergy Clin Immunol 127(3): 587, 2011
Illustration created based on: Food Allergy Emergency Response Manual (March 2018 Edition) by the Evaluation Committee on Measures for Allergic Disease, Tokyo Metropolitan Government <https://www.fukushihoken.metro.tokyo.lg.jp/allergy/pdf/pri06.pdf> browsed September 27, 2024

If the child cannot inject EPIPEN[®] by him/herself, the parent or teacher/childcare worker should do so instead.

(Unavoidable use of EPIPEN[®] by teachers and childcare workers for life-saving is allowed under the Medical Practitioners' Act, and they will be irresponsible.)

How to use EPIPEN[®] injection solution Training

**Keep practicing with the “EPIPEN[®] Trainer”
so you can inject EPIPEN[®] correctly when needed.**

● How to use EPIPEN[®] –Practice with the “EPIPEN[®] Trainer”–

STEP

1

Preparation

Firmly hold the middle of the EPIPEN[®] with your dominant hand with the orange tip facing downward. With your other hand, remove the blue safety cap straight upward.

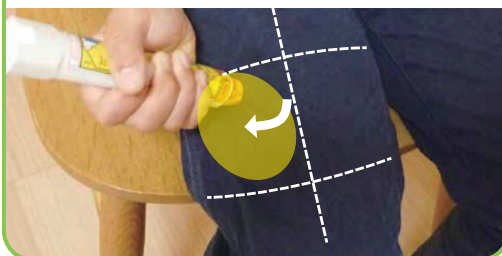


STEP

2

Injection

Apply EPIPEN[®] vertically to your front-outer thigh, and press the tip of the orange needle cover firmly until you hear a “click”. Hold for several seconds with pressing it against your thigh.



- Look at where you inject while practicing.
- Grip EPIPEN[®] so as not to place your thumb on the upper or lower tips.
- Only inject the solution into your front-outer thigh.
- Firmly hold EPIPEN[®] not to move the administration site.
- Do not inject by swinging the EPIPEN[®] onto your thigh.

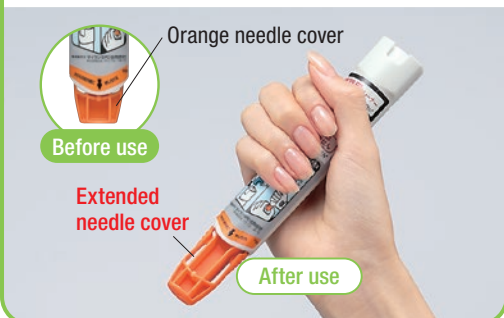
Adapted with modification of image for “injection with EPIPEN[®] in sitting position” from page 21 of “Fully-understandable guidebook for food allergy to prevent asthma (zensoku yobo no tameno yokuwakaru shokumotu arerugi taio gaidobukku) 2021”, https://www.erca.go.jp/yobou/pamphlet/form/00/pdf/archives_31321.pdf browsed September 27, 2024

STEP

3

Check

After injection, check whether the orange needle cover has been extended.



STEP

4

After treatment

- 1 Put the blue safety cap back by pushing its tip into its original position.



- 2 Place the tip of the orange needle cover on a hard surface (desk etc.). Put the main body of the trainer in by pressing it downward while holding the upper part of the orange needle cover on the both side with fingers.



If a caregiver administers the injection

- Please ask someone to firmly hold the upper thigh and knee in place to keep the leg from moving.



When you see signs or symptoms of anaphylaxis, inject EPIPEN®

● How to use EPIPEN® –When anaphylaxis occurs–

STEP

1

Preparation

Firmly hold the middle of the EPIPEN® with your dominant hand with the orange tip facing downward. With your other hand, remove the blue safety cap straight upward.



- While the blue safety cap is in place, the spring is locked so the needle will not come out accidentally. Do not take the blue safety cap off until use.
- Handle the injector carefully after removing the safety cap to prevent accidental injection.
- Never place your thumb, fingers or hands over the tip of the orange needle cover.
- Check before use if the blue safety cap is loosened, if the drug solution visible through the window of the injector is discolored, or if any deposits are in the solution.
- Do not apply transverse force when removing the blue safety cap.

Checklist for EPIPEN® Use

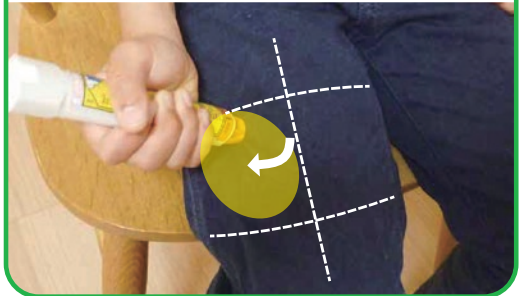
- Remove EPIPEN® from carrying case
- Check if the blue safety cap is loosened, if the drug solution is discolored, or if any deposits are in the solution
- Hold EPIPEN® with your dominant hand with the orange tip facing downward
- With the other hand, remove the blue safety cap straight upward
- If other person administers, fix the leg so as not to move
- When administering through clothing, empty pockets
- Apply EPIPEN® vertically to the front-outer thigh, and place the tip of the orange needle cover
- Press the tip firmly until you hear a “click” and hold it for several seconds
- Remove EPIPEN® from the thigh. Check whether the orange needle cover has been extended
- Put the used EPIPEN® back into carrying case

STEP

2

Injection

Apply EPIPEN® vertically to your front-outer thigh, and press the tip of the orange needle cover firmly until you hear a “click”. Hold it on your thigh for several seconds. Remove EPIPEN® from your thigh.



- Grip EPIPEN® so as not to place your thumb on the upper or lower tips.
- Only inject the solution into your front-outer thigh.
- Firmly hold EPIPEN® so as not to move the administration site.
- Do not inject by swinging the EPIPEN® onto your thigh.
- In emergencies, you can inject the solution through clothing.

Adapted with modification of image for “injection with EPIPEN® in sitting position”
from page 21 of
“Fully-understandable guidebook for food allergy to prevent asthma (zensoku yobo no tameno yokuwakaru shokumotu arerugi taio gaidobukku) 2021”,
https://www.erca.go.jp/yobou/pamphlet/form/00/pdf/archives_31321.pdf
browsed September 27, 2024

If a caregiver administers the injection

- Please ask someone to firmly hold the upper thigh and knee in place to keep the leg from moving.



immediately into your front-outer thigh.

For movie of how to use
visit EPIPEN®
site at
www.epipen.jp



STEP

3

Check

After injection, check whether the orange needle cover has been extended. If so, injection is complete (The needle is within the orange needle cover).



Orange needle cover

Before use

Extended
needle cover

After use

- If the orange needle cover is not extended, injection is not complete. Repeat Steps 1-3 for injection.
- After injection, get a medical attention immediately.

STEP

4

After treatment

Put the used EPIPEN® back into the carrying case with the orange needle cover first.



- After injection, the cap of the carrying case cannot be closed because the orange needle cover is extended. Do not try to force it into the case.
- After injection, a large portion of the drug solution (about 1.7 mL) remains in the injector, but the solution cannot be injected again.
- Report to your doctor that you used EPIPEN® injection solution and give the used EPIPEN® injector and the blue safety cap to the medical institution, etc.

Check

EPIPEN® injection solution 0.3mg and EPIPEN® injection solution 0.15mg can be used in the similar way.

Never inject the solution into your buttocks or arm. If you use EPIPEN® on the wrong site on your body, visit the nearest medical institution immediately.

★Correct way of holding to avoid accidental injection

- DANGER. Never place your fingers, thumb or hands on the tip of the orange needle cover. The needle comes out of the orange tip. About 1.5 cm (for 0.3 mg) or about 1.3 cm (for 0.15 mg) of needle will come out from the tip of the orange cover.
- DANGER. Never disassemble EPIPEN®.

Correct
way of
holding



Wrong
way of
holding





Attention: EPIPEN® has an expiration date!
Be sure to register with the
“Expiration Reminder Service”
to prevent the use of an expired EPIPEN®.

● **How to register with the “Expiration Reminder Service” for EPIPEN®**
(Re-registration necessary for refill prescription)

Application
for
registration

Registration through App

After downloading “My EPI,” tap “Add new EPIPEN” button and image the manufacturing number and the expiration date.



Registration via the website

Visit the “EPIPEN®” website (<http://www.epipen.jp>) and click on “Registration” button for “Expiration Reminder Service.” Then, enter the necessary information to the form and send it.



Registration with the postcard

Fill out and the post the registration postcard.



Notice of the
expiration
date

You will receive the notification about one month before the expiration date.

*If your address or e-mail address, etc. has been changed, contact EPIPEN® Customer Support Center below.

For App

e-mail and push notification



For Web

e-mail

For postcard

postcard

Visit medical
institution/
pharmacy



Prior to the expiration date, bring the unused EPIPEN® to your medical institution/pharmacy.

*Unused EPIPEN® is required to be disposed of as a medical waste.
For disposal, follow instructions from your doctor or pharmacist.

Get a
refill
prescription



You should see your doctor again to receive a refill prescription of EPIPEN®.



Register again as previously.

- The registration card is included in the box with the product.
- If you lose the registration postcard or you have moved and your address has been changed, contact EPIPEN® Customer Support Center.

EPIPEN® Customer Support Center 0120-303-347 (toll-free in Japan)
(Excluding Sundays, Japanese national holidays, and company holidays)

※We promise that your personal information provided will be used for the notice of the expiration date, etc., and will not be used for other purposes and the information will not be provided to third parties.