About Food Allergies and Anaphylaxis

Food allergies are the most common cause of anaphylaxis, a life-threatening allergic reaction that is rapid in onset and may cause death. However, the following triggers can also cause an anaphylactic episode in some patients:

**Insect Venom**
- Insect stings account for 18.5% of anaphylactic cases.
- Although fatal anaphylactic reactions are not common, 82% of people who experienced fatal insect venom-induced anaphylaxis had not had a previous severe reaction.

**Medications**
- Medications account for 13.7% of anaphylactic cases.
- Certain medications are more likely to produce allergic reactions than others, including:
  - Antibiotics, such as penicillin
  - Non-steroidal anti-inflammatory medications, such as ibuprofen
  - Aspirin
  - Monoclonal antibody therapy
  - Chemotherapy

**Exercise-Induced**
- Exercise-induced anaphylaxis is a rare condition in which anaphylaxis may occur during or after physical activity. This may be due to recent exposure to medication and/or food to which an individual is allergic.
- Vigorous forms of physical activity, such as jogging, are more commonly associated, although lower levels of exertion (e.g., yard work) are also capable of triggering attacks.

**Latex**
- Latex allergies are most common in people who have regular exposure to latex products, such as rubber gloves.
  - An estimated 12% of healthcare workers may be allergic to latex.

**Idiopathic**
- In about 20% of anaphylactic cases no trigger is identified, a condition known as idiopathic anaphylaxis.

**Indications**
EpiPen® (epinephrine injection) 0.3 mg and EpiPen Jr® (epinephrine injection) 0.15 mg Auto-Injectors are for the emergency treatment of life-threatening allergic reactions (anaphylaxis) caused by allergens, exercise, or unknown triggers; and for people who are at increased risk for these reactions. EpiPen® and EpiPen Jr® are intended for immediate administration as emergency supportive therapy only. Seek immediate emergency medical help right away.

**Important Safety Information**
EpiPen® and EpiPen Jr® Auto-Injectors contain a single dose of epinephrine, which you (or your caregiver or others who may be in a position to administer EpiPen® or EpiPen Jr®) inject into the middle of your outer thigh (upper leg) (through clothing, if necessary). Get emergency medical help right away. You may need further medical attention. Only a health care professional should give additional doses of epinephrine if you need more than two injections for a single anaphylactic episode. DO NOT INJECT INTO YOUR VEINS, BUTTOCKS, FINGERS, TOES, HANDS OR FEET. In case of accidental injection, please seek immediate medical treatment. Epinephrine should be used with caution if you have heart disease or are taking certain medicines that can cause heart-related (cardiac) symptoms.

Please see additional Important Safety Information on next page.
Please see accompanying full Prescribing Information and Patient Information.
About Food Allergies and Anaphylaxis

Defining Food Allergy-Induced Anaphylaxis
Food allergy-induced anaphylaxis occurs when the immune system is exposed to a specific food that may trigger the sudden release of chemicals, including histamine, resulting in symptoms of a life-threatening allergic reaction. Anaphylaxis is a life-threatening allergic reaction that is rapid in onset and may be life-threatening, either through swelling that shuts off airways or through a significant drop in blood pressure.

Food Allergy-Induced Anaphylaxis Symptoms
Food allergy symptoms can range from mild to severe and in rare cases lead to anaphylaxis. Symptoms may affect:

- **Central nervous system**: feelings of uneasiness, throbbing headache, dizziness, confusion, tunnel vision
- **Airway**: shortness of breath, chest tightness, wheezing, itchy throat, hoarseness (dysphonia)
- **Skin**: hives (urticaria), itching (pruritus), flushing, itching and swelling of lips, tongue, uvula palate
- **Cardiovascular system**: hypotension, chest pain, fast heart rate (tachycardia), weak pulse, dizziness, fainting
- **Gastrointestinal system**: nausea, cramping, abdominal pain, vomiting, diarrhea

The severity of an allergic reaction to food is based on many factors. As such, the severity of any future reaction cannot be accurately predicted by the severity of a past reaction.

Rising Prevalence of Food Allergy-Induced Anaphylaxis
While the exact prevalence of food allergies is uncertain, a 2010 study in The Journal of Allergy and Clinical Immunology estimated 2.5% of Americans have a clinical food allergy. The Centers for Disease Control and Prevention reported in 2008 that an 18% increase in food allergy was seen between 1997 and 2007. Furthermore, a study published in the July 2011 issue of Pediatrics found a considerable increase in food allergy from previously reported figures — it noted that 8% of children in the U.S., or approximately one out of 13, live with a food allergy. Of those children affected, 38% had a history of a severe reaction and 30% had allergies to multiple foods. The Centers for Disease Control and Prevention (CDC) report that the number of children with food allergy has increased by a staggering 50% (from 3.4% to 5.1%) between 1997 and 2011. While there are a number of theories as to why food allergies are on the rise, there are no definitive answers.

Important Safety Information (cont’d)
Tell your doctor if you have certain medical conditions such as asthma, depression, thyroid disease, Parkinson's disease, diabetes, high blood pressure or heart disease, have any other medical conditions, are pregnant or plan to become pregnant, or are breastfeeding or plan to breastfeed. Be sure to also tell your doctor all the medicines you take, especially medicines for asthma. If you have certain medical conditions, or take certain medicines, your condition may get worse or you may have longer lasting side effects when you use EpiPen® or EpiPen Jr®.

The most common side effects may include increase in heart rate, stronger or irregular heartbeat, sweating, nausea or vomiting, difficulty breathing, paleness, dizziness, weakness, shakiness, headache, apprehension, nervousness or anxiety. These side effects may go away if you rest. Tell your health care professional if you have any side effect that bothers you or that does not go away.

Please see accompanying full Prescribing Information and Patient Information.

You are encouraged to report negative side effects of prescription drugs to the FDA. Visit [www.fda.gov/medwatch](http://www.fda.gov/medwatch) or call 1-800-FDA-1088.

For additional information, please contact us at 800-395-3376.
About Food Allergies and Anaphylaxis

Leading Food Allergens

According to the U.S. Food and Drug Administration (FDA), the most common foods to cause anaphylaxis, accounting for 90% of all food allergy reactions in the U.S., include:

- Cow’s milk
- Eggs
- Wheat
- Soybeans
- Peanuts
- Tree nuts (walnuts, cashews, pistachios, pecans, etc.)
- Fish
- Shellfish

Cow’s milk and egg allergies typically begin in childhood and may eventually be outgrown. Although peanut and tree nut allergies were once considered lifelong allergies, studies show that about 20% of those with peanut allergies and 10% of those with tree nut allergies may acquire tolerance.

The severity of a food-triggered life-threatening allergic reaction depends on a number of factors, including the amount eaten, the food form (cooked, raw or processed) and the co-ingestion of other foods. Other considerations include the person’s age, the body’s sensitivity at time of ingestion, the speed at which food is absorbed by the body and whether the person has another life-threatening condition, such as severe or uncontrolled asthma.

Managing Food Allergy-Induced Anaphylaxis Symptoms

There is no cure for food allergies. Avoidance of allergic triggers is the critical first step to prevent a serious health emergency; however, accidental exposure may still happen. In fact, cross-contamination of otherwise safe foods at the time of packaging or food preparation (especially in restaurants) remains a potential hazard for individuals with food allergies. That is why prompt recognition of the signs and symptoms of allergic reactions is critical. Anaphylaxis symptoms may progress rapidly and become life-threatening, requiring immediate recognition and treatment. Food allergy guidelines developed by the National Institute of Allergy and Infectious Diseases (NIAID), a division of the National Institutes of Health (NIH), recommend epinephrine as the only first-line treatment for food allergy anaphylaxis management and that it be available at all times to those at-risk for anaphylaxis. If experiencing anaphylaxis, use an epinephrine auto-injector and seek immediate emergency medical attention. Delays in epinephrine administration have been associated with negative health consequences, even possibly death.

According to the NIAID food allergy guidelines, food allergy-induced anaphylaxis is sometimes mistaken for food intolerance because they share some of the same symptoms; however, food intolerance does not involve the immune system. Food intolerance can cause great discomfort but is not life-threatening. Some people with food intolerances are not able to digest certain foods because their bodies lack the specific enzyme needed to break down that food.

Food Allergy Labeling

Clear food labeling is an important component to appropriate food allergy management. By law, the eight major allergens must be noted on all packaged food labels, either in the ingredient list or on a separate allergen statement. However, individuals with food allergies should be aware that advisory or precautionary labeling (e.g., “may contain,” “in a facility that also processes”) is not regulated and solely voluntary. As such, this strongly reinforces the need for constant awareness and preparedness in the event of anaphylaxis, including access to epinephrine.

Indications

EpiPen® (epinephrine injection) 0.3 mg and EpiPen Jr® (epinephrine injection) 0.15 mg Auto-Injectors are for the emergency treatment of life-threatening allergic reactions (anaphylaxis) caused by allergens, exercise, or unknown triggers; and for people who are at increased risk for these reactions. EpiPen® and EpiPen Jr® are intended for immediate administration as emergency supportive therapy only. Seek immediate emergency medical help right away.

Important Safety Information

EpiPen® and EpiPen Jr® Auto-Injectors contain a single dose of epinephrine, which you (or your caregiver or others who may be in a position to administer EpiPen® or EpiPen Jr®) inject into the middle of your outer thigh (upper leg) (through clothing, if necessary). Get emergency medical help right away. You may need further medical attention.

Please see additional Important Safety Information on next page.

Please see accompanying full Prescribing Information and Patient Information.
About Food Allergies and Anaphylaxis

Important Safety Information (cont’d)

Only a health care professional should give additional doses of epinephrine if you need more than two injections for a single anaphylactic episode. DO NOT INJECT INTO YOUR VEINS, BUTTOCKS, FINGERS, TOES, HANDS OR FEET. In case of accidental injection, please seek immediate medical treatment. Epinephrine should be used with caution if you have heart disease or are taking certain medicines that can cause heart-related (cardiac) symptoms.

Tell your doctor if you have certain medical conditions such as asthma, depression, thyroid disease, Parkinson’s disease, diabetes, high blood pressure or heart disease, have any other medical conditions, are pregnant or plan to become pregnant, or are breastfeeding or plan to breastfeed. Be sure to also tell your doctor all the medicines you take, especially medicines for asthma. If you have certain medical conditions, or take certain medicines, your condition may get worse or you may have more lasting side effects when you use EpiPen® or EpiPen Jr®.

The most common side effects may include increase in heart rate, stronger or irregular heartbeat, sweating, nausea or vomiting, difficulty breathing, paleness, dizziness, weakness, shakiness, headache, apprehension, nervousness or anxiety. These side effects may go away if you rest. Tell your health care professional if you have any side effect that bothers you or that does not go away.

Please see accompanying full Prescribing Information and Patient Information.

You are encouraged to report negative side effects of prescription drugs to the FDA. Visit www.fda.gov/medwatch or call 1-800-FDA-1088.

For additional information, please contact us at 800-395-3376.

INDICATIONS AND USAGE
Epinephrine and EpiPen Jr* contain epinephrine, a non-selective alpha and beta-adrenergic receptor agonist, indicated in the emergency treatment of allergic reactions (Type I) including anaphylaxis. (1)

DOSEAGE AND ADMINISTRATION
• Patients greater than or equal to 30 kg (66 lbs): EpiPen® 0.3 mg (2)
• Patients 15 to 30 kg (33 lbs to 66 lbs): EpiPen Jr* 0.15 mg

Inject EpiPen® and EpiPen Jr* intramuscularly or subcutaneously into the anterolateral aspect of the thigh, through clothing if necessary. Each device is a single-use injection. (2)

DOSE FORMS AND STRENGTHS
• EpiPen®: Injection, 0.3 mg: 0.3 mg/0.3 mL epinephrine, USP, pre-filled auto-injector (3)
• EpiPen Jr*: Injection, 0.15 mg: 0.15 mg/0.3 mL epinephrine, USP, pre-filled auto-injector (3)

CONTRAINDICATIONS
None (4)

WARNINGS AND PRECAUTIONS
In conjunction with use, seek immediate medical or hospital care. (5.1)
• Do not inject intravenously, into buttock, or into digits, hands, or feet. (5.2)
• The presence of a sulfite in this product should be recognized in sulfite-sensitive patients. (5.3)
• Administer with caution in patients with heart disease; may aggravate angina pectoris or produce ventricular arrhythmias. (5.4)

ADVERSE REACTIONS
Adverse reactions to epinephrine include anxiety, apprehensiveness, restlessness, tremor, weakness, dizziness, sweating, palpitations, pallor, nausea and vomiting, headache, and/or respiratory difficulties. (6)

To report SUSPECTED ADVERSE REACTIONS, contact Mylan Specialty, L.P. at 1-877-446-3679 or FDA at 1-800-FDA-1088 or www.fda.gov/medwatch.

DRUG INTERACTIONS
• Cardiovascular drugs: May potentiate effects of epinephrine. (7)
• Tricyclic antidepressants, monoamine oxidase inhibitors: May potentiate effects of epinephrine. (7)
• Beta-adrenergic blocking drugs: antagonize the cardiostimulating and bronchodilating effects of epinephrine. (7)
• Alpha-adrenergic blocking drugs: antagonize vasoconstricting and hypertensive effects of epinephrine. (7)
• Ergot alkaloids: may reverse the pressor effects of epinephrine. (7)

USE IN SPECIFIC POPULATIONS
Elderly patients may be at greater risk of developing adverse reactions. (5.4, 8.5)

See 17 for PATIENT COUNSELING INFORMATION and FDA approved patient labeling

Revised: April 2014

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5.2 Incorrect Locations of Injection
EpiPen® and EpiPen Jr* should not be injected into the anterolateral aspect of the thigh [see Dosage and Administration (2) and Patient Counseling Information (17)].

Do not inject intravenously. Large doses or accidental intravenous injection of epinephrine may result in cerebral hemorrhage due to sharp rise in blood pressure. Rapidly acting vasodilators can counteract the marked pressor effects of epinephrine if there is such inadvertent administration.

Do not inject into buttock. Injection into the buttock may not provide effective treatment of anaphylaxis. Advise the patient to go immediately to the nearest emergency room for further treatment of anaphylaxis. Additionally, injection into the buttock has been associated with gas gangrene. Cleansing with alcohol does not kill bacterial spores, and therefore, does not lower this risk.

Do not inject into digits, hands, or feet. Since epinephrine is a strong vasoconstrictor, accidental injection into the digits, hands or feet may result in loss of blood flow to the affected area. Advise the patient to go immediately to the nearest emergency room and to inform the health care professional in the emergency room of the location of the accidental injection. Treatment of such inadvertent administration should consist of vasodilatation, in addition to further appropriate treatment of anaphylaxis [see Adverse Reactions (6)].

5.3 Allergic Reactions Associated With Sulffite
The presence of a sulfite in this product should be recognized in sulfite-sensitive patients. Epinephrine is the preferred treatment for serious allergic reactions and other situations or emergency situations even though this product contains sodium metabisulfite, a sulfite that may, in other products, cause allergic-type reactions including anaphylactic symptoms or severe-life-threatening reactions or severe-life threatening situations. Therefore, patients with these conditions, and/or any other person who might be in a position to administer EpiPen® or EpiPen Jr* to a patient experiencing anaphylaxis should be carefully instructed in regard to the circumstances under which epinephrine should be used.

Patients with Heart Disease
Epinephrine should be administered with caution to patients who have heart disease, including patients with cardiac arrhythmias, coronary artery or organic heart disease, or hypertension. In some patients, or in patients who are on certain drugs, epinephrine may precipitate or aggravate angina pectoris as well as produce ventricular arrhythmias [see Drug Interactions (7) and Adverse Reactions (6)].

Other patients
• Epinephrine should be administered with caution to patients with hyperthyroidism, diabetes, elderly individuals, and pregnant women. Patients with Parkinson’s disease may notice a temporary worsening of symptoms.

6 ADVERSE REACTIONS
Due to the lack of randomized, controlled clinical trials of epinephrine for the treatment of anaphylaxis, the true incidence of adverse reactions associated with the systemic use of epinephrine is difficult to determine. Adverse reactions reported in observational trials, case reports, and studies are listed below.

Common adverse reactions to systemically administered epinephrine include anxiety; apprehensiveness; restlessness; tremor; weakness; dizziness; sweating; palpitations; pallor; nausea and vomiting; headache; and/or respiratory difficulties. These symptoms occur in some persons after therapeutic doses of epinephrine, but are more likely to occur in patients with hypertension or hyperthyroidism [see Warnings and Precautions (5.4)].

Arrhythmias, including fatal ventricular fibrillation, have been reported particularly in patients with underlying cardiac disease or those receiving certain drugs [see Warnings and Precautions (5.4) and Drug Interactions (7)]. Rapid rise in blood pressure have produced cerebral hemorrhage, particularly in elderly patients with cardiovascular disease [see Warnings and Precautions (5.4)].

Angina may occur in patients with coronary artery disease [see Warnings and Precautions (5.4)].

Accidental injection into the digits, hands or feet may result in loss of blood flow to the affected area [see Warnings and Precautions (5.4)].
Adverse events experienced as a result of accidental injections may include increased heart rate, local reactions including injection site pallor, coldness and hyposthesia or injury at the injection site resulting in bruising, bleeding, discoloration, erythema or skeletal injury. Injection into the buttock has resulted in cases of gas gangrene [see Warnings and Precautions (5.2)].

7 DRUG INTERACTIONS

Patients who receive epinephrine while concomitantly taking cardiac glycosides, diuretics, or anti-arrhythmics should be observed carefully for the development of cardiac arrhythmias [see Warnings and Precautions (5.4)]. The effects of epinephrine may be potentiated by tri cyclic antidepressants, monoamine oxidase inhibitors, levethyroxine sodium, and certain antihistamines, notably chlorpheniramine, triproleneammonium, and diphenhydramine. The cardio stimulating and bronchodilating effects of epinephrine are antagonized by beta-adrenergic blocking drugs, such as propranolol. The vasoconstricting and hypertensive effects of epinephrine are antagonized by alpha-adrenergic blocking drugs such as phentolamine. Ergot alkaloids may also reverse the pressor effects of epinephrine.

8 USE IN SPECIFIC POPULATIONS

8.1 Pregnancy

Teratogenic Effects: Pregnancy Category C. There are no adequate and well controlled studies of the acute effect of epinephrine in pregnant women. Epinephrine was teratogenic in rabbits, mice and hamsters. Epinephrine should be used during pregnancy only if the potential benefit justifies the risk to the fetus (fetal anoxia, spontaneous abortion, or both).

Epinephrine has been shown to have teratogenic effects when administered subcutaneously in rabbits at approximately 30 times the maximum recommended daily subcutaneous or intramuscular dose (on a mg/m² basis at a matenal dose of 1.2 mg/kg/day for two to three days, in mice at approximately 7 times the maximum daily subcutaneous or intramuscular dose (on a mg/kg basis at a matenal dose of 1 mg/kg/day for 10 days), and in hamsters at approximately 5 times the maximum recommended daily subcutaneous or intramuscular dose (on a mg/kg basis at a subcutaneous dose of 0.5 mg/kg/day for 4 days). These effects were not seen in mice at approximately 3 times the maximum recommended daily subcutaneous or intramuscular dose (on a mg/kg basis at a subcutaneous dose of 0.5 mg/kg for 10 days).

8.3 Nursing Mothers

It is not known whether epinephrine is excreted in human milk. Because many drugs are excreted in human milk, caution should be exercised when Epipen® is administered to a nursing woman.

8.4 Pediatric Use

Epipen® Jr or EpiPen Jr® may be administered to pediatric patients at a dosage appropriate to body weight [see Dosage and Administration (2)]. Clinical experience with the use of epinephrine suggests that the adverse reactions in children are similar in nature and extent to those both expected and reported in adults. Since the doses of epinephrine delivered from EpiPen® and EpiPen Jr® are fixed, consider using other forms of injectable epinephrine if doses lower than 0.15 mg are deemed necessary.

8.5 Geriatric Use

Clinical studies for the treatment of anaphylaxis have not been performed in subjects aged 65 and over to determine whether they respond differently from younger subjects. However, other reported clinical experience with use of epinephrine for the treatment of anaphylaxis has identified that geriatric patients may be particularly sensitive to the effects of epinephrine. Therefore, EpiPen® should be administered with caution to elderly patients, who may be at greater risk for developing adverse reactions after epinephrine administration [see Warnings and Precautions (5.4), Overdosage (10)].

10 OVERDOSAGE

Overdosage of epinephrine may produce extremely elevated arterial pressure, which may result in cerebrovascular hemorrhage, particularly in elderly patients. Overdosage may also result in pulmonary edema because of peripheral vascular constriction and cardiac stimulation. Treatment consists of rapidly acting vasopressors or alpha-adrenergic blocking drugs and/or respiratory support. Epinephrine overdosage may also cause transient bradycardia followed by polymorphic ventricular tachycardia (pre fibrillation rhythm). Subsidence of the ventricular effects may be followed by atrial tachycardia and occasionally by atrioventricular block. Treatment of arrhythmias consists of administration of a beta-adrenergic blocking drug such as propranolol. Overdosage sometimes results in extreme pallor and coldness of the skin, metabolic acidosis, and kidney failure. Suitable corrective measures must be taken in such situations [see Overdosage (10)].

11 DESCRIPTION

EpiPen® (epinephrine injection, USP) 0.3 mg and EpiPen Jr® (epinephrine injection, USP) 0.15 mg are auto-injectors and combination products containing drug and device components. Each EpiPen® Auto-Injector, 0.3 mg delivers a single dose of 0.3 mg epinephrine from epinephrine injection, USP 1:1000 (0.3 ml) in a sterile solution. Each EpiPen Jr® Auto-Injector, 0.15 mg delivers a single dose of 0.15 mg epinephrine from epinephrine injection, USP 1:2000 (0.3 mL). The EpiPen® and EpiPen Jr® each contain 2 mL epinephrine solution. Approximately 1.7 mL remains in the auto-injector after activation, but is not available for future use, and should be discarded. Each EpiPen® Auto-Injector contains 0.3 mg epinephrine, 1.8 mg sodium chloride, 0.5 mg sodium metabisulfite, hydrochloric acid to adjust pH, and Water for Injection. The pH range is 2.2–5.0. Each 0.3 mL in the Epi Pen® Jr Auto-Injector contains 0.15 mg epinephrine, 1.8 mg sodium chloride, 0.5 mg sodium metabisulfite, hydrochloric acid to adjust pH, and Water for Injection. The pH range is 2.2–5.0. Epinephrine is a sympathomimetic catecholamine. Chemically, epinephrine is α-(3,4-Dihydroxy-α-[methylamino]phenyl)ethanol with the following structure:

12 CLINICAL PHARMACOLOGY

12.1 Mechanism of Action

Epinephrine acts on both alpha- and beta-adrenergic receptors.

12.2 Pharmacodynamics

Through its action on alpha-adrenergic receptors, epinephrine lessens the vasodilation and increased vascular permeability that occurs during anaphylaxis, which can lead to loss of intravascular fluid volume and hypotension. Through its action on beta-adrenergic receptors, epinephrine causes bronchial smooth muscle relaxation and helps alleviate bronchospasm, wheezing and dyspnea that may occur during anaphylaxis. Epinephrine also alleviates pruritus, urticaria, and angioedema and may relieve gastrointestinal and cutaneous symptoms associated with anaphylaxis. Epinephrine also alleviates bronchial spasm, wheezing and dyspnea that may occur during anaphylaxis. Epinephrine also alleviates bronchial spasm, wheezing and dyspnea that may occur during anaphylaxis. Epinephrine also alleviates bronchial spasm, wheezing and dyspnea that may occur during anaphylaxis.

Each EpiPen® Auto-Injectors (epinephrine injections, USP 1:1000, 0.3 mL) are available as EpiPen Jr 2-Pak®, NDC 49502-501-02, a pack that contains two EpiPen Jr® Auto-Injectors (epinephrine injections, USP 1:2000, 0.3 mL) and one EpiPen Jr® Trainer. EpiPen 2-Pak® and EpiPen 2-Pak® also includes an S-clip to clip two carrier tubes together. Rx only

16.2 Storage and Handling

Protect from light. Epinephrine is light sensitive and should be stored in the carrier tube provided to protect it from light. Store at 20° to 25°C (68° to 77°F); excursions permitted to 15° to 30°C (59° to 86°F) [see USP Controlled Room Temperature]. Do not refrigerate. Before using, check to make sure that the activated auto-injector is still available for re-use. Replace the auto-injector if the solution is discolored (pinkish or brown color), cloudy, or contains particles.

17 PATIENT COUNSELING INFORMATION

[see FDA-Approved Patient Labeling (Patient Information and Instructions for Use)]

A health care professional should review the patient instructions and operation of EpiPen® and EpiPen Jr® in detail, with the patient or caregiver. Epinephrine is essential for the treatment of anaphylaxis. Patients who are at risk for anaphylaxis with a history of severe allergic reactions (anaphylaxis) to insect stings or bites, foods, drugs, and other allergens, as well as idiopathic and exercise-induced anaphylaxis, should be carefully instructed about the circumstances under which epinephrine should be used. Administration and Training

Patients and/or caregivers should be instructed to use the appropriate use of Epipen® and EpiPen Jr®. Epipen® should be injected into the middle of the outer thigh (through clothing, if necessary). Each device is a single-use injection. Advise patients to seek immediate medical care in consultation with administration of Epipen®. Complete patient information, including dosage, directions for proper administration and precautions can be found inside each EpiPen® or EpiPen Jr® carton. A perforated label on the surface of EpiPen® shows instructions for use and a diagram depicting the injection process. Patients and/or caregivers should be instructed to use the appropriate use of Epipen® and EpiPen Jr® to familiarize themselves with the use of Epipen® in an allergic emergency. The Trainer may be used multiple times. A Trainer is provided in EpiPen® and EpiPen Jr® 2-Pak cartons.

Adverse Reactions

Epinephrine may produce symptoms and signs that include an increase in heart rate, the sensation of a more forceful heartbeat, palpitations, sweating, nausea and vomiting, difficulty breathing, pallor, dizziness, weakness or shakiness, headache, apprehension, nervousness, or anxiety. These signs and symptoms usually subside rapidly, especially with rest, quiet and recumbency. Patients with hypertension or hyperthyroidism may develop more severe or persistent effects, and patients with coronary artery disease could experience chest pain. Patients may develop increased blood glucose levels following epinephrine administration. Patients with Parkinson's disease may notice a temporary worsening of symptoms [see Warnings and Precautions (5.4)].

Accidental Injection

Advise patients to seek immediate medical care in the case of accidental injection. Since epinephrine is a strong vasoconstrictor when injected into the digits, hands, or feet, treatment should be directed at vasodilatation if there is such an accidental injection to these areas [see Warnings and Precautions (5.2)].

Storage and Handling

Instruct patients to inspect the epinephrine solution visually through the clear window of the auto-injector periodically. EpiPen® and EpiPen Jr® should be replaced if the epinephrine solution appears discolored (pinkish or brown color), cloudy, or contains particles. Epinephrine is light sensitive and should be stored in the carrier tube provided to protect it from light. The plastic tube is not water proof. Patients should be instructed that EpiPen® and Epi Pen Jr® must be used or properly disposed once the blue safety release is removed or after use [see Storage and Handling (16.2)].

Complete patient information, including dosage, directions for proper administration and precautions can be found inside each EpiPen® Auto-Injector carton.
PATIENT INFORMATION and INSTRUCTIONS FOR USE

For allergic emergencies (anaphylaxis)

PATIENT INFORMATION

Read this Patient Information Leaflet carefully before using the EpiPen® or EpiPen Jr® Auto-Injector so that you know how to use it before you have an allergic emergency. This information does not replace the talking with your health care professional about your medical condition or your treatment.

What is the most important information I should know about the EpiPen® and EpiPen Jr®?

1. EpiPen® and EpiPen Jr® contain a medicine used to treat allergic emergencies (anaphylaxis). Anaphylaxis can be life-threatening, can happen within minutes, and can be caused by stinging and biting insects, allergy injections, foods, medicines, exercise, or unknown causes.

Symptoms of anaphylaxis may include:
- trouble breathing
- wheezing
- hoarseness (changes in the way you voice sounds)
- hives (raised reddened rash that may itch)
- severe itching
- swelling of your face, lips, mouth, or tongue
- skin rash, redness, or swelling
- fast heartbeat
- weak pulse
- feeling very anxious
- confusion
- stomach pain
- losing control of urine or bowel movements (incontinence)
- diarrhea or stomach cramps
- dizziness, fainting, or “passing out” (unconsciousness)

2. Always carry your EpiPen® or EpiPen Jr® with you because you may not know when anaphylaxis may happen.

Talk to your health care professional if you need additional units to keep at work, school, or other locations. Tell your family members, caregivers, and others where you keep your EpiPen® or EpiPen Jr® and how to use it before you need it. You may be unable to speak in an allergenic episode.

3. When you have an allergic emergency (anaphylaxis)

- Use EpiPen® or EpiPen Jr® right away.
- Get emergency medical help right away. You may need further medical attention. You need to use a second EpiPen® or EpiPen Jr® if symptoms continue or recur. Only a health care professional should give additional doses of epinephrine if you need more than 2 injections for a single anaphylaxis episode.

What are EpiPen® and EpiPen Jr®?

- EpiPen® and EpiPen Jr® contain a medicine used to treat allergic emergencies (anaphylaxis). Anaphylaxis can be life-threatening, can happen within minutes, and can be caused by stinging and biting insects, allergy injections, foods, medicines, exercise, or unknown causes.

- EpiPen® and EpiPen Jr® are for immediate self (or caregiver) administration and do not take the place of emergency medical care. You should get emergency help right away after using EpiPen® and EpiPen Jr®.

- EpiPen® and EpiPen Jr® are for people who have been prescribed this medicine by their health care professional.

- The EpiPen® Auto-Injector (0.3 mg) is for patients who weigh 66 pounds or more (30 kilograms or more).

- The EpiPen Jr® Auto-Injector (0.15 mg) is for patients who weigh about 33 to 66 pounds (15 to 30 kilograms).

- It is not known if EpiPen® and EpiPen Jr® are safe and effective in children who weigh less than 33 pounds (15 kilograms).

What should I tell my health care professional before using the EpiPen® or EpiPen Jr®?

Before you use EpiPen® or EpiPen Jr®, tell your health care professional about all your medical conditions, but especially if you:

- have heart problems or high blood pressure
- have diabetes
- have thyroid problems
- have asthma
- have a history of depression
- have Parkinson’s disease
- have any other medical conditions
- are pregnant or plan to become pregnant. It is not known if epinephrine will harm your unborn baby.
- are breastfeeding or plan to breastfeed. It is not known if epinephrine passes into your breast milk.

Tell your health care professional about all the medicines you take, including prescription and over-the-counter medicines, vitamins, and herbal supplements. Tell your health care professional of all known allergies. Especially tell your health care professional if you take certain asthma medicines.

EpiPen® or EpiPen Jr® and other medicines may affect each other. For example, the effects of EpiPen® or EpiPen Jr® may affect the way other medicines work, and other medicines may affect how EpiPen® or EpiPen Jr® works.

Know the medicines you take. Take a list of them to show your health care professional and pharmacist when you get medicine. Use your EpiPen® or EpiPen Jr® for treatment of anaphylaxis as prescribed by your health care professional, regardless of your medical conditions or the medicines you take.

How should I use EpiPen® and EpiPen Jr®?

- Each EpiPen® or EpiPen Jr® Auto-Injector contains only 1 dose of medicine.
- EpiPen® or EpiPen Jr® should be injected into the middle of your outer thigh (upper leg). It can be injected through your clothing if needed.

Read the Instructions for Use at the end of this Patient Information Leaflet about the right way to use EpiPen® and EpiPen Jr®.

Your health care professional will show you how to safely use the EpiPen® or EpiPen Jr® Auto-Injector.

- Use your EpiPen® or EpiPen Jr® exactly as your health care professional tells you to use it. You may need to use a second EpiPen® or EpiPen Jr® if symptoms continue or recur. Only a health care professional should give additional doses of epinephrine if you need more than 2 injections for a single anaphylaxis episode.

Caution: Never put your thumb, fingers, or hand over the orange tip. Never press or push the orange tip with your thumb, fingers, or hand. The needle comes out of the orange tip. Accidental injection into finger, hands or feet may cause a loss of blood flow to these areas. If this happens, go immediately to the nearest emergency room. Tell the health care professional where on your body you received the accidental injection.

- Your EpiPen® and EpiPen Jr® Auto-Injector may come packaged with an EpiPen® Trainer and separate Trainer Instructions for Use. The EpiPen® Trainer has a grey color. The grey EpiPen® Trainer contains no medicine and no needle. Periodically practice with your EpiPen® Trainer before an allergic emergency happens to make sure you are able to safely use the real EpiPen® and EpiPen Jr® Auto-Injector in an emergency. Always carry your real EpiPen® or EpiPen Jr® Auto-Injector with you in case of an allergic emergency. Additional training resources are available at www.epipen.com.

- Do not drop the carrier tube or auto-injector. If the carrier tube or auto-injector is dropped, check for damage and leakage. Dispose of the auto-injector and carrier tube, and replace if damage or leakage is noticed or suspected.

What are the possible side effects of the EpiPen® and EpiPen Jr®?

EpiPen® and EpiPen Jr® may cause serious side effects.

The EpiPen® or EpiPen Jr® should only be injected into the middle of your outer thigh (upper leg). Do not inject the EpiPen® or EpiPen Jr® into your:

- veins
- buttocks
- fingers, toes, hands, or feet

If you accidentally inject EpiPen® or EpiPen Jr® into any other part of your body, go to the nearest emergency room right away. Tell the health care professional where on your body you received the accidental injection.

- If you have certain medical conditions, or take certain medicines, your condition may get worse or you may have lasting side effects when you use your EpiPen® or EpiPen Jr®. Talk to your health care professional about all your medical conditions.

Common side effects of EpiPen® and EpiPen Jr® include:

- fast, irregular or “pounding” heartbeat
- sweating
- headache
- weakness
- shakiness
- paleness
- feelings of over excitement, nervousness or anxiety
- dizziness
- nausea or vomiting
- breathing problems

These side effects may go away with rest. Tell your health care professional if you have any side effect that bothers you or that does not go away.

These are not all the possible side effects of the EpiPen® or EpiPen Jr®. For more information, ask your health care professional or pharmacist.

Call your health care professional for medical advice about side effects. You may report side effects to FDA at 1-800-FDA-1088.

How should I store EpiPen® and EpiPen Jr®?

- Store EpiPen® and EpiPen Jr® at room temperature between 68° to 77°F (20° to 25°C).
- Protect from light.
- Do not expose to extreme cold or heat. For example, do not store in your vehicle’s glove box and do not store in the refrigerator or freezer.
- Examine the contents in the clear window of your auto-injector periodically. The solution should be clear. If the solution is discolored (pinkish or brown color) or contains solid particles, replace the unit.
- Always keep your EpiPen® or EpiPen Jr® Auto-Injector in the carrier tube to protect it from damage; however, the carrier tube is not waterproof.
- The blue safety release helps to prevent accidental injection. Keep the blue safety release on until you need to use EpiPen® or EpiPen Jr®.
- Your EpiPen® or EpiPen Jr® has an expiration date. Replace it before the expiration date.

Keep EpiPen® and EpiPen Jr® and all medicines out of the reach of children.

General information about the safe and effective use of EpiPen® and EpiPen Jr®:

EpiPen® and EpiPen Jr® are disposable, prefilled automatic injection devices (auto-injectors) used to treat life-threatening, allergic emergencies including anaphylaxis in people who are at risk for or have a history of serious allergic emergencies. Each device contains a single dose of epinephrine.

EpiPen® and EpiPen Jr® are for immediate self (or caregiver) administration and do not take the place of emergency medical care. You should get emergency help right away after using EpiPen® and EpiPen Jr®.

EpiPen® and EpiPen Jr® are for people who have been prescribed this medicine by their health care professional.

The EpiPen® Auto-Injector (0.3 mg) is for patients who weigh 66 pounds or more (30 kilograms or more).

The EpiPen Jr® Auto-Injector (0.15 mg) is for patients who weigh about 33 to 66 pounds (15 to 30 kilograms).

It is not known if EpiPen® and EpiPen Jr® are safe and effective in children who weigh less than 33 pounds (15 kilograms).

For more information and video instructions on the use of EpiPen® and EpiPen Jr®, go to www.epipen.com or call 1-800-395-3376.

What are the ingredients in EpiPen® and EpiPen Jr®?

Active Ingredients: Epinephrine

Inactive Ingredients: sodium chloride, sodium metabisulfite, hydrochloric acid, and water.

IMPORTANT INFORMATION

- The EpiPen® Auto-Injector has a yellow colored label.
- The EpiPen Jr® Auto-Injector has a green colored label.
- The EpiPen® Trainer has a grey color and contains no medicine and no needle.
- The EpiPen Jr® Trainer has a grey color and contains no medicine and no needle.
- Your auto-injector is designed to work through clothing.
- The blue safety release on the EpiPen® and EpiPen Jr® Auto-Injector helps to prevent accidental injection of the device. Do not remove the blue safety release until you are ready to use it.
- Only inject into the middle of the outer thigh (upper leg). Never inject into any other part of the body.
- Never put your thumb, fingers, or your hand over the orange tip. The needle comes out of the orange tip.
- If an accidental injection happens, get medical help right away.
- Do not place patient information or any other foreign objects in the carrier tube with the Auto-Injector, as this may prevent you from removing the Auto-Injector for use.
INSTRUCTIONS FOR USE

For allergic emergencies (anaphylaxis)

Read these Instructions for Use carefully before you use EpiPen® or EpiPen Jr®. Before you need to use your EpiPen® or EpiPen Jr®, make sure your health care professional shows you the right way to use it. Parents, caregivers, and others who may be in a position to administer EpiPen® or EpiPen Jr® Auto-Injector should also understand how to use it as well. If you have any questions, ask your health care professional.

Your EpiPen® and EpiPen Jr® Auto-Injector

A dose of EpiPen® or EpiPen Jr® requires 3 simple steps: Prepare, Administer and Get emergency medical help

Step 1. Prepare EpiPen® or EpiPen Jr® for injection

Remove the EpiPen® or EpiPen Jr® from the clear carrier tube.

Flip open the yellow cap of your EpiPen® or the green cap of your EpiPen Jr® carrier tube.

Tip and slide the auto-injector out of the carrier tube.

Grasp the auto-injector in your fist with the orange tip pointing downward.

With your other hand, remove the blue safety release by pulling straight up without bending or twisting it.

Note:
• The needle comes out of the orange tip.
• To avoid an accidental injection, never put your thumb, fingers or hand over the orange tip. If an accidental injection happens, get medical help right away.

Step 2. Administer EpiPen® or EpiPen Jr®

Hold the auto-injector with orange tip near the middle of the outer thigh (upper leg).

Swing and firmly push the orange tip against the middle of the outer thigh until it ‘clicks’.

Keep the auto-injector firmly pushed against the thigh at a 90° angle (perpendicular) to the thigh.

Hold firmly against the thigh for approximately 10 seconds to deliver the medicine. The injection is now complete.

Remove the auto-injector from the thigh. The orange tip will extend to cover the needle.

Massage the injection area for 10 seconds.

Step 3. Get emergency medical help now. You may need further medical attention. You may need to use a second EpiPen® or EpiPen Jr® Auto-Injector if symptoms continue or recur.

• Take your used auto-injector with you when you go to see a health care professional.

• Tell the health care professional that you have received an injection of epinephrine. Show the health care professional where you received the injection.

• Give your used EpiPen® or EpiPen Jr® Auto-Injector to the health care professional for inspection and proper disposal.

• Ask for a refill, if needed.

Note:
• The used auto-injector with extended needle cover will not fit in the carrier tube.

EpiPen® or EpiPen Jr® are single-use injectable devices that deliver a fixed dose of epinephrine. The auto-injector cannot be reused. It is normal for most of the medicine to remain in the auto-injector after the dose is injected. The correct dose has been administered if the orange needle tip is extended and the window is blocked.

Your EpiPen® or EpiPen Jr® Auto-Injector may come packaged with an EpiPen® Trainer and separate Trainer Instructions for Use. The EpiPen® Trainer has a grey color. The grey EpiPen® Trainer contains no medicine and no needle. Practice with your EpiPen® Trainer, but always carry your real EpiPen® or EpiPen Jr® Auto-Injector in case of an allergic emergency.

• Do not try to take the EpiPen® or EpiPen Jr® Auto-Injector apart.

This Patient Information and Instructions for Use has been approved by the U.S. Food and Drug Administration.

Manufactured for:
Mylan Specialty L.P., Morgantown, WV 26505, U.S.A. by Meridian Medical Technologies, Inc., Columbia, MD 21046, U.S.A., a Pfizer company

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