PATIENT MEDICATION INFORMATION - APIDRA® VIALS

READ THIS FOR SAFE AND EFFECTIVE USE OF YOUR MEDICINE

APIDRA® VIALS

insulin glulisine injection (rDNA origin)

Read this carefully before you start taking **APIDRA** and each time you get a refill. This leaflet is a summary and will not tell you everything about this drug. Talk to your healthcare professional about your medical condition and treatment and ask if there is any new information about **APIDRA**.

Serious Warnings and Precautions

- Hypoglycemia (low blood sugar) is the most common adverse effect of insulin, including APIDRA.
- Blood glucose (blood sugar) monitoring is recommended for all patients with diabetes.
- Uncorrected hypoglycemic (low blood sugar) or hyperglycemic (high blood sugar) reactions can cause loss of consciousness, coma, or death.
- Any change of insulin should be made cautiously and only under medical supervision. This may result in dosage adjustment.
- When used as a mealtime insulin, the dose of APIDRA should be given within 15 minutes before or within 20 minutes after starting a meal.
- APIDRA given by subcutaneous injection should generally be used in regimens with an intermediate or long-acting insulin. APIDRA can also be used alone in insulin infusion pump therapy to maintain adequate glucose control.
- APIDRA can be mixed with NPH human insulin (except when administered with pump).
- Insulin products shall not be used if it is not water-clear and colourless or if it has formed a deposit of solid particles on the wall of the vial or cartridge.

What is APIDRA used for?

APIDRA [insulin glulisine injection (rDNA origin)] is an antidiabetic agent (short-acting recombinant human insulin analogue), used to reduce high blood sugar in adults and children (6 years or older) with diabetes mellitus.

How does APIDRA work?

Insulin is a hormone produced by the pancreas, a large gland that lies near the stomach. This hormone is necessary for the body's correct use of food, especially sugar. Diabetes occurs when the pancreas does not make enough insulin to meet your body's needs or when your body cannot use properly the insulin you normally produce.

When your body does not make enough insulin, you need an external source of insulin. That is why you must take insulin injections. APIDRA is similar to the insulin made by your body.

APIDRA has a rapid onset of action and a short duration of about 4 hours. APIDRA should normally be used with a longer-acting insulin to maintain adequate blood sugar. APIDRA can also be used with oral drugs to reduce blood sugar.

You have been instructed to test your blood and/or your urine regularly for glucose (sugar); it is especially important to test even more often when changing insulins or dosing schedule. If your blood tests consistently show above- or below-normal glucose levels, or your urine tests consistently show

the presence of glucose, your diabetes is not properly controlled, and you must let your health professional know.

What are the ingredients in APIDRA?

Medicinal ingredients: Insulin glulisine, (rDNA origin)

Non-medicinal ingredients: m-cresol, polysorbate 20, sodium chloride, trometamol, water, and hydrochloric acid and sodium hydroxide for pH adjustment

APIDRA comes in the following dosage forms:

Solution for injection: (100 U/mL)

Do not use APIDRA if:

- if you are allergic to this drug or to any ingredient in the formulation or component of the container.
- if your blood sugar is too low (hypoglycemia). After treating your low blood sugar, follow your health care provider's instructions on the use of APIDRA.

To help avoid side effects and ensure proper use, talk to your healthcare professional before you take APIDRA. Talk about any health conditions or problems you may have, including if:

- you are planning to have a baby, are pregnant, or are nursing a baby;
- you drink alcohol;
- you are ill;
- you exercise more than usual or if you want to change your usual diet;
- you are traveling;
- you drive or use tools or machine;
- you have trouble with your kidneys or liver;
- you are taking any other medication;

If you have vision changes (diabetic retinopathy) and your blood glucose levels improve very fast, the vision changes may get worse. Ask your doctor about this.

Your ability to concentrate or react may be reduced if you have hypoglycemia (low blood sugar) or hyperglycemia (high blood sugar). Please keep these possible problems in mind in all situations where you might put yourself or others at risk (for example driving a car or operating machinery).

You should contact your doctor about the advisability of driving if you have:

- frequent episodes of hypoglycemia
- reduced or absent warning signs of hypoglycemia.

Hypokalemia (low potassium) is a possible side effect. You might be more at risk if you are on potassium lowering drugs or losing potassium (e.g. diarrhea).

The injection site should be rotated to prevent skin changes such as lumps under the skin. The insulin may not work very well if you inject into a lumpy area (see How to take APIDRA). Contact your health professional if you develop skin changes at the injection site or if you are currently injecting into a lumpy area before you start injecting in a different area. A sudden change of site may result in hypoglycemia. Your health professional may tell you to check your blood sugar more closely, and to adjust your insulin or your other antidiabetic medications dose.

Always keep an extra supply of insulin as well as the appropriate injection supplies on hand. Always wear medical alert identification and carry information about your diabetes so that appropriate treatment can be given if complications occur away from home.

Accidental mix-ups between insulin glulisine and other insulins, particularly long-acting insulins, have been reported. To avoid medication errors between insulin glulisine and other insulins, patients should be instructed to always check the insulin label before each injection.

Your needles and syringes are only for you and must not be shared to avoid disease transmission.

Other warnings you should know about:

The use of thiazolidinediones (such as rosiglitazone and pioglitazone), alone or in combination with other antidiabetic agents (including insulin), has been associated with heart failure and swelling of the lower extremities. Please contact your physician immediately if you develop symptoms of shortness of breath, fatigue, exercise intolerance, or swelling of the lower extremities while you are on these agents.

If you also take other oral drugs to reduce your blood sugar, their dose may need to be adjusted.

Insulin injections play an important role in keeping your diabetes under control. But the way you live – your diet, careful monitoring of your glucose levels, exercise, or planned physical activity and following your health professional's recommendations – all work with your insulin to help you control your diabetes.

In some situations, your need in insulin may change, for example if you are stress or suffering from other illnesses (e.g. infections).

Your diabetes may also be more difficult to control if you suffer from acromegaly (too much growth hormone), Cushing's syndrome (too much cortisol hormone), hyperthyroidism (too much thyroid hormone) or have a pheochromocytoma (tumor of the adrenal glands).

Tell your healthcare professional about all the medicines you take, including any drugs, vitamins, minerals, natural supplements or alternative medicines.

The following may interact with APIDRA:

- drugs that can increase blood sugar (drugs with hyperglycemic activity):
    - contraceptives (birth control pills, injections and patches)
    - hormone replacement therapies
    - corticosteroids
    - thyroid replacement therapy
    - sympathomimetic agents (such as decongestants and diet pills)
- drugs that can lower blood glucose (drugs with hypoglycemic activity):
    - oral antidiabetic agents
    - salicylates (aspirin)
    - sulfa antibiotics
    - blood pressure medications (including ACE inhibitors, beta-blockers)
    - psychiatric medications (including MAO inhibitors, antidepressants, anti-anxiety medications)
- alcohol

Substances including beta-blockers, used for conditions including blood pressure, heart arrhythmias, palpitations and headache, and alcohol may enhance or weaken the blood-glucose-lowering effect of insulins, and signs of hypoglycemia may be reduced or absent.

Other medicines, including non-prescription medicines, and dietary supplements (such as vitamins) can change the way insulin works. Your dose of insulin or other medications may need to be changed in consultation with your healthcare professional.

How to take APIDRA:

Your doctor has recommended the type of insulin that he/she believes is best for you. DO NOT USE ANY OTHER INSULIN EXCEPT ON THE ADVICE AND DIRECTION OF YOUR DOCTOR.

Mixing of Insulins:

APIDRA can be mixed with NPH human insulin (except for pump (see section below for use of continuous subcutaneous insulin infusion pump)). APIDRA should be drawn into the syringe first. Injection should be made immediately after mixing.

Mixtures should not be administered intravenously.

Correct Syringe

It is important to use a syringe that is marked for U-100 insulin preparations since APIDRA contains 100 units/mL. Using an incorrect syringe could lead to a mistake in dosing and cause medical problems for you, such as a blood glucose level that is too low or too high.

Syringe Use

CAREFULLY FOLLOW THE DIRECTIONS SUPPLIED BY YOUR HEALTH PROFESSIONAL ON HOW TO USE SYRINGES TO:

- **HELP AVOID CONTAMINATION AND POSSIBLE INFECTION**
- **OBTAIN AN ACCURATE DOSE**

Disposable syringes and needles should be used only once and then properly discarded.

NEEDLES AND SYRINGES MUST NOT BE SHARED.

Preparing the Dose

1. To avoid medication errors, check the vial label of the insulin before each injection.
2. Inspect the insulin. APIDRA must only be used if the solution is clear, colorless, with no solid particles visible, and if it is of a water-like consistency. Do not use it if you notice anything unusual in the appearance of the solution. Do not use the insulin after the expiry date on the label.
3. Make sure the insulin is at room temperature to minimize local irritation at the injection site.
4. Wash your hands.
5. It is not necessary to shake or rotate the vial before use. Shaking the vial vigorously may cause frothing. Froth may interfere with the correct measurement of the dose.
6. If APIDRA is mixed with NPH human insulin, APIDRA should be drawn into the syringe first. Refer to the instructions for mixing below.
7. Before withdrawing insulin from the vial for the first time, remove the plastic protective cap, but DO NOT remove the stopper.
8. Wipe the top of the vial with an alcohol swab.
9. A new sterile syringe must be used.

10. Draw air into the syringe equal to your insulin dose. Put the needle through the rubber top of the insulin vial and inject the air into the vial.
11. Turn the vial and syringe upside down. Hold the vial and syringe firmly in one hand.
12. Make sure the tip of the needle is in the insulin and withdraw the correct dose of insulin into the syringe.
13. Before removing the needle from the vial, check your syringe for air bubbles. If bubbles are present, hold the syringe straight up and tap its side until the bubbles float to the top. Push them out with the plunger and withdraw the correct dose.
14. Remove the needle from the vial. Do not let the needle touch anything prior to injection.
15. An empty vial must never be reused and must be properly discarded.

Mixing of APIDRA with NPH human insulin

1. APIDRA should be mixed with NPH human insulin only on the advice of your doctor.
2. Before withdrawing insulin from the vials for the first time, remove the plastic protective cap, but DO NOT remove the stopper.
3. Wipe the top of the vials with an alcohol swab.
4. Draw back the plunger of the syringe to the number of NPH human insulin units you need. Put the syringe into the NPH human insulin vial and press the plunger down. This injects air into the vial. Remove the needle from the vial without taking insulin out.
5. Draw back the plunger of the syringe to the number of APIDRA units you need. Put the syringe into the APIDRA vial and press the plunger down. This injects air into the vial. Do not withdraw the needle.
6. Turn the vial and syringe upside down. Hold the vial with one hand and the syringe with the other. Pull back the plunger to five units past your dose.
7. If you get an air bubble, flick the syringe so the bubble rises to the top. Then push the air back into the vial. Adjust APIDRA to the correct dose. Remove the needle from the APIDRA vial.
8. Gently rotate the NPH human insulin vial to mix the insulin.
9. Put the needle with the APIDRA into the NPH human insulin vial, and turn upside down as before.
10. Pull back the plunger until you have the total number of units required (APIDRA + NPH human insulin units). Do not go past the total dose.
11. Make sure you do not push any APIDRA into the NPH human insulin vial. If you pull up too much of the NPH human insulin into the syringe, throw it out and start again. Do not put the insulin back into the vial.
12. Remove the needle from the vial. Do not let the needle touch anything prior to injection.
13. APIDRA should be injected immediately after mixing. It is important to be consistent in your method. Never use APIDRA if it has become cloudy.

Injection

There is no relevant difference in absorption of APIDRA between abdomen, thigh, buttock or upper arm subcutaneous injection areas. However, injection sites within an injection area (abdomen, thigh, buttock or upper arm) must be rotated from one injection to the next. This will reduce the risk of skin shrinking or thickening or lumps at the site.

- **Do not** inject where the skin has pits, is thickened, or has lumps.
- **Do not** inject where the skin is tender, bruised, scaly or hard, or into scars or damaged skin.

Cleanse the skin with alcohol where the injection is to be made. Pinch and hold the skin and insert the needle as instructed by your health professional. Slowly push the plunger of the syringe in completely.

Slowly count to 10 before removing the needle from the injection site and gently apply pressure for several seconds. DO NOT RUB THE AREA.

Preparation and handling for continuous subcutaneous insulin infusion pump (CSII):

The instructions for using the APIDRA in a pump must be followed carefully.

APIDRA may be used for CSII in pump systems suitable for insulin infusion.

When used with an insulin infusion pump, APIDRA should not be mixed with any other insulin or diluted with any other solution.

Patients using CSII should be comprehensively instructed on the use of the system pump. The infusion set and reservoir must be changed at least every 48 hours using sterile technique. It is important that patients follow these instructions even if they differ from the general pump manual instructions.

Patients administering APIDRA by CSII must have an alternative insulin delivery system available in case of pump system failure.

Usual dose:

The dosage of APIDRA should be individualized and determined based on your health professional's advice in accordance with your needs.

APIDRA should be given by subcutaneous injection within 15 minutes before a meal or within 20 minutes after starting a meal. It can also be used in an external insulin pump for continuous subcutaneous insulin infusion (CSII).

Many factors may affect your usual APIDRA dose, which may include changes in your diet, activity, or work schedule. Follow your health professional's instructions carefully. Consult your health professional if you notice your insulin requirements changing markedly. Other factors that may affect your dose of insulin or your need to do additional blood/urine testing are:

Illness

Illness, especially with nausea and vomiting, diarrhea and/or fever, may change how much insulin you need. Even if you are not eating, you will still require insulin. You and your health professional should establish a sick day plan for you to use in case of illness. When you are sick, test your blood/urine frequently and call your health professional as instructed.

Pregnancy

If you are planning to have a baby, are pregnant, or are nursing a baby, consult your health professional. Good control of diabetes is especially important for you and your unborn baby. Pregnancy may make managing your diabetes more difficult.

Medication

Always discuss any medications you are taking, prescription or "over-the-counter", with your health professional (see section above: **The following may interact with APIDRA**). To prevent drug interactions, volunteer the names of everything you are taking even before they ask if there have been any changes.

Exercise

If your exercise routine changes, discuss with your health professional the possible need to adjust your insulin regimen. Exercise may lower your body's need for insulin during and for some time after the

activity. As for all insulins, the rate of absorption, and consequently the onset and duration of action, may be affected by exercise and other variables.

Travel

Consult your health professional concerning possible adjustments in your insulin schedule if you will be traveling across time zones. You may want to take along extra insulin and supplies whenever you travel.

Overdose:

If you have injected too much APIDRA, your blood sugar level may become too low (hypoglycemia). Check your blood sugar frequently. In general, to prevent hypoglycemia you must eat more food and monitor your blood sugar. For information on the treatment of hypoglycemia, **see "Common problems of diabetes" below.**

Hypoglycemia may occur as a result of an excess of insulin relative to food intake, energy expenditure, or both.

In severe cases, coma, seizure and brain disorders may be seen and treated with glucagon (injected in the muscle or subcutaneous tissue) or glucose (injected in the vein).

You should continue checking your blood sugar even if you feel better because hypoglycemia may recur.

If you think you have taken too much APIDRA, contact your healthcare professional, hospital emergency department or regional poison control centre immediately, even if there are no symptoms.

Missed Dose:

If you have **missed a dose of APIDRA** or if **you have not injected enough insulin**, your blood sugar level may become too high (hyperglycemia). Check your blood sugar frequently. For information on the treatment of hyperglycemia, **see "Common problems of diabetes" below**.

Do not take a double dose to make up for a forgotten dose.

What are possible side effects from using APIDRA?

These are not all the possible side effects you may feel when taking APIDRA. If you experience any side effects not listed here, contact your healthcare professional. Please also see SERIOUS WARNINGS AND PRECAUTIONS BOX above.

Common problems of diabetes

Hypoglycemia (Insulin Reaction)

Hypoglycemia (too little glucose in the blood) is one of the most frequent adverse events experienced by insulin users. It can be brought on by situations such as:

- intercurrent conditions (illness, stress, or emotional disturbances),
- accidental injection of an increased insulin dose,
- malfunction and/or misuse of medical devices,
- too-low food intake, or skipped meals,
- an increase in exercise,
- a new insulin type or schedule,
- some new medications, including prescriptions, over-the counter medications, herbs, vitamins and street drugs.

Symptoms of mild to moderate hypoglycemia may occur suddenly and can include:

- abnormal behavior (anxiety, irritability, restlessness, trouble concentrating, personality changes, mood changes, confusion or nervousness),
- fatigue,
- tingling in your hands, feet, lips, or tongue,
- tremor (shaking),
- unsteady gait (walking),
- dizziness, light-headedness, or drowsiness,
- headache,
- blurred vision,
- slurred speech,
- palpitations (rapid heartbeat),
- cold sweat,
- pale skin,
- nightmares or trouble sleeping,
- nausea,
- hunger.

Mild to moderate hypoglycemia can be treated by consuming foods or drinks that contain sugar. Patients should always carry a quick source of sugar, such as candy, juice or glucose tablets, prominently labelled for rescuers. Contact your health professional about appropriate proportions of carbohydrates.

Signs of severe hypoglycemia can include:

- disorientation,
- convulsions,
- loss of consciousness,
- seizures.

Severe hypoglycemia may require the assistance of another person. Patients who are unable to take sugar orally or who are unconscious may require an injection of glucagon or should be treated with intravenous administration of glucose by medical personnel. Without immediate medical help, serious reactions or even death could occur.

The early warning symptoms of hypoglycemia may be changed, be less pronounced, or be absent, as for example, in patients whose sugar levels are markedly improved, in elderly patients, in patients with diabetic nerve disease, in patients with a long history of diabetes, or in patients receiving concurrent treatment with certain other drugs. Such situations may result in severe hypoglycemia (and possibly, loss of consciousness) before a patient has symptoms.

Some people may not recognize when their blood sugar drops low. Without recognition of early warning symptoms, you may not be able to take steps to avoid more serious hypoglycemia. Be alert for all of the various types of symptoms that may indicate hypoglycemia. Patients who experience hypoglycemia without early warning symptoms should monitor their blood glucose frequently, especially prior to activities such as driving a car or use mechanical equipment. If the blood glucose is below your normal fasting glucose, you should consider eating or drinking sugar-containing foods to treat your hypoglycemia.

If you have frequent episodes of hypoglycemia or experience difficulty in recognizing the symptoms, you should consult your health professional to discuss possible changes in therapy, meal plans, and/or

exercise programs to help you avoid hypoglycemia.

Hyperglycemia

Hyperglycemia (too much glucose in the blood) may develop if your body has too little insulin.

Hyperglycemia can be brought about by:

- intercurrent conditions (illness, stress, or emotional disturbances),
- not taking your insulin or taking less than recommended by your health professional,
- malfunction and/or misuse of medical devices,
- eating significantly more than your meal plan suggests,
- a new insulin type or schedule,
- some new medications, including prescriptions, over-the counter medications, herbs, vitamins and street drugs.

Symptoms of hyperglycemia include:

- confusion or drowsiness,
- increased thirst,
- decreased appetite, nausea, or vomiting,
- rapid heart rate,
- increased urination and dehydration (too little fluid in your body),
- blurred vision,
- flushed dry skin,
- acetone odour of breath.

Hyperglycemia can be mild or severe. It can **progress to high glucose levels, diabetic ketoacidosis (DKA), and result in unconsciousness and death.**

Diabetic ketoacidosis (DKA)

The first symptoms of diabetic ketoacidosis usually come on over a period of hours or days. With ketoacidosis, urine tests show large amounts of glucose and acetone.

Symptoms of diabetic ketoacidosis include:

First symptoms:

- drowsiness,
- flushed face,
- thirst,
- loss of appetite,
- fruity smelling breath,
- rapid, deep breathing,
- abdominal (stomach area) pain.

Severe symptoms:

- heavy breathing,
- rapid pulse.

Prolonged hyperglycemia or diabetic ketoacidosis can lead to:

- nausea,
- vomiting,
- dehydration,

- loss of consciousness,
- death.

Severe or continuing hyperglycemia or DKA requires prompt evaluation and treatment by your health professional.

Allergic reactions

In rare cases, a patient may be allergic to an insulin product. Severe insulin allergies may be life-threatening. If you think you are having an allergic reaction, seek medical help immediately.

Signs of insulin allergy include:
- a rash all over your body,
- shortness of breath,
- wheezing (trouble breathing),
- a fast pulse,
- sweating,
- low blood pressure.

Possible reactions on the skin at the injection site

Injecting insulin can cause the following reactions on the skin at the injection site:
- a little depression in the skin (lipoatrophy),
- skin thickening (lipohypertrophy),
- skin lumps (localized cutaneous amyloidosis),
- redness, itching, swelling, or hemorrhage at injection site.

You can reduce the chance of getting an injection site reaction if you change the injection site each time. If you have local injection site reactions, contact your health professional as a sudden change of site may result in hypoglycemia.

In some instances, these reactions may be related to factors other than insulin, such as irritants in the skin cleansing agent or poor injection technique.

If you have a troublesome symptom or side effect that is not listed here or becomes bad enough to interfere with your daily activities, talk to your healthcare professional.

Reporting Side Effects

You can report any suspected side effects associated with the use of health products to Health Canada by:

- Visiting the Web page on Adverse Reaction Reporting (https://www.canada.ca/en/health-canada/services/drugs-health-products/medeffect-canada.html) for information on how to report online, by mail or by fax; or
- Calling toll-free at 1-866-234-2345.

NOTE: Contact your health professional if you need information about how to manage your side effects. The Canada Vigilance Program does not provide medical advice.

Storage:

Unopened Vial:
Unopened APIDRA vials should be stored in a refrigerator, between 2°C and 8°C. Keep APIDRA away

from direct heat and light. APIDRA should not be stored in the freezer and should not be allowed to freeze. If APIDRA freezes or overheats, discard it.

Opened (In Use) Vial:
The opened vial can be kept refrigerated or unrefrigerated (15 to 25°C) for up to 28 days away from direct heat and light, as long as the temperature is not greater than 25°C. Opened APIDRA vials, whether or not refrigerated, must be discarded after 28 days even if they contain insulin.

Opened APIDRA vials should not be stored in the freezer and should not be allowed to freeze. If a vial freezes or overheats, discard it.

Do not use a vial of APIDRA after the expiration date stamped on the label or if it is cloudy or if you see particles.

Infusion sets (when used with Continuous Subcutaneous Insulin Infusion pump)

Infusion sets (reservoirs, tubing, and catheters) and the APIDRA in the reservoir must be discarded after no more than 48 hours of use or after exposure to temperatures that exceed 37°C.

Keep out of reach and sight of children.

If you want more information about APIDRA:

- Talk to your healthcare professional
- Find the full product monograph that is prepared for healthcare professionals and includes this Patient Medication Information by visiting the Health Canada website: (https://www.canada.ca/en/health-canada/services/drugs-health-products/drug-products/drug-product-database.html; the manufacturer's website http://www.sanofi.ca, or by calling 1-888-852-6887.

This document plus the full product monograph, prepared for health professionals can be found at www.sanofi.ca or by contacting the sponsor, sanofi-aventis Canada Inc., at: 1-888-852-6887. It is also available in large print format.

This leaflet was prepared by sanofi-aventis Canada Inc.

Last revised: December 01, 2021

PATIENT MEDICATION INFORMATION - APIDRA® CARTRIDGES

READ THIS FOR SAFE AND EFFECTIVE USE OF YOUR MEDICINE

APIDRA® CARTRIDGES

insulin glulisine injection (rDNA origin)

Cartridges are for use ONLY with AllStar® PRO and JuniorSTAR® pens.

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- Blood glucose (blood sugar) monitoring is recommended for all patients with diabetes.
- Uncorrected hypoglycemic (low blood sugar) or hyperglycemic (high blood sugar) reactions can cause loss of consciousness, coma, or death.
- Any change of insulin should be made cautiously and only under medical supervision. This may result in dosage adjustment.
- When used as a meal time insulin, the dose of APIDRA should be given within 15 minutes before or within 20 minutes after starting a meal.
- APIDRA given by subcutaneous injection should generally be used in regimens with an intermediate or long-acting insulin. APIDRA can also be used alone in insulin infusion pump therapy to maintain adequate glucose control.
- APIDRA can be mixed with NPH human insulin (except when administered with pump).
- Insulin products shall not be used if it is not water-clear and colourless or if it has formed a deposit of solid particles on the wall of the vial or cartridge.

What is APIDRA used for?

APIDRA [insulin glulisine injection (rDNA origin)] is an antidiabetic agent (short-acting recombinant human insulin analogue), used to reduce high blood sugar in adults and children (6 years or older) with diabetes mellitus.

How does APIDRA work?

Insulin is a hormone produced by the pancreas, a large gland that lies near the stomach. This hormone is necessary for the body's correct use of food, especially sugar. Diabetes occurs when the pancreas does not make enough insulin to meet your body's needs or when your body cannot use properly the insulin you normally produce.

When your body does not make enough insulin, you need an external source of insulin. That is why you must take insulin injections. APIDRA is similar to the insulin made by your body.

APIDRA has a rapid onset of action and a short duration of about 4 hours. APIDRA should normally be used with a longer-acting insulin to maintain adequate blood sugar. APIDRA can also be used with oral drugs to reduce blood sugar.

You have been instructed to test your blood and/or your urine regularly for glucose (sugar); it is especially important to test even more often when changing insulins or dosing schedule. If your blood

tests consistently show above- or below-normal glucose levels, or your urine tests consistently show the presence of glucose, your diabetes is not properly controlled, and you must let your health professional know.

What are the ingredients in APIDRA?

Medicinal ingredients: Insulin glulisine, (rDNA origin)

Non-medicinal ingredients: m-cresol, polysorbate 20, sodium chloride, trometamol, water, and hydrochloric acid and sodium hydroxide for pH adjustment

APIDRA comes in the following dosage forms:

Solution for injection: 100 U/mL

Do not use APIDRA if:

- if you are allergic to this drug or to any ingredient in the formulation or component of the container.
- if your blood sugar is too low (hypoglycemia). After treating your low blood sugar, follow your health care provider's instructions on the use of APIDRA.

To help avoid side effects and ensure proper use, talk to your healthcare professional before you take APIDRA. Talk about any health conditions or problems you may have, including if:

- you are planning to have a baby, are pregnant, or are nursing a baby;
- you drink alcohol;
- you are ill;
- you exercise more than usual or if you want to change your usual diet;
- you are traveling;
- you drive or use tools or machine;
- you have trouble with your kidneys or liver;
- you are taking any other medication;

If you have vision changes (diabetic retinopathy) and your blood glucose levels improve very fast, the vision changes may get worse. Ask your doctor about this.

Your ability to concentrate or react may be reduced if you have hypoglycemia (low blood sugar) or hyperglycemia (high blood sugar). Please keep these possible problems in mind in all situations where you might put yourself or others at risk (for example driving a car or operating machinery).

You should contact your doctor about the advisability of driving if you have:

- frequent episodes of hypoglycemia
- reduced or absent warning signs of hypoglycemia.

Hypokalemia (low potassium) is a possible side effect. You might be more at risk if you are on potassium lowering drugs or losing potassium (e.g. diarrhea).

The injection site should be rotated to prevent skin changes such as lumps under the skin. The insulin may not work very well if you inject into a lumpy area (see How to take APIDRA). Contact your health professional if you develop skin changes at the injection site or if you are currently injecting into a lumpy area before you start injecting in a different area. A sudden change of site may result in hypoglycemia. Your health professional may tell you to check your blood sugar more closely, and to adjust your insulin or your other antidiabetic medications dose.

Always keep an extra supply of insulin as well as the appropriate injection supplies on hand. Always

wear medical alert identification and carry information about your diabetes so that appropriate treatment can be given if complications occur away from home.

Accidental mix-ups between insulin glulisine and other insulins, particularly long-acting insulins, have been reported. To avoid medication errors between insulin glulisine and other insulins, patients should be instructed to always check the insulin label before each injection.

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Other warnings you should know about:

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If you also take other oral drugs to reduce your blood sugar, their dose may need to be adjusted.

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Your diabetes may also be more difficult to control if you suffer from acromegaly (too much growth hormone), Cushing's syndrome (too much cortisol hormone), hyperthyroidism (too much thyroid hormone) or have a pheochromocytoma (tumor of the adrenal glands).

Tell your healthcare professional about all the medicines you take, including any drugs, vitamins, minerals, natural supplements or alternative medicines.

The following may interact with APIDRA:

- drugs that can increase blood sugar (drugs with hyperglycemic activity):
    - contraceptives (birth control pills, injections and patches)
    - hormone replacement therapies
    - corticosteroids
    - thyroid replacement therapy
    - sympathomimetic agents (such as decongestants and diet pills)
- drugs that can lower blood glucose (drugs with hypoglycemic activity):
    - oral antidiabetic agents
    - salicylates (aspirin)
    - sulfa antibiotics
    - blood pressure medications (including ACE inhibitors, beta-blockers)
    - psychiatric medications (including MAO inhibitors, antidepressants, anti-anxiety medications)
- alcohol

Substances including beta-blockers, used for conditions including blood pressure, heart arrhythmias, palpitations and headache, and alcohol may enhance or weaken the blood-glucose-lowering effect of insulins, and signs of hypoglycemia may be reduced or absent.

Other medicines, including non-prescription medicines, and dietary supplements (such as vitamins) can change the way insulin works. Your dose of insulin or other medications may need to be changed in consultation with your healthcare professional.

How to take APIDRA:

Your doctor has recommended the type of insulin that he/she believes is best for you. DO NOT USE ANY OTHER INSULIN EXCEPT ON THE ADVICE AND DIRECTION OF YOUR DOCTOR.

The instructions for using the APIDRA in the injection pen must be followed carefully.

It is important to use the APIDRA cartridge only with AllStar PRO and JuniorSTAR pens. Using the cartridge in any other injection pen not suitable for the APIDRA cartridge could lead to a mistake in dosing and cause medical problems for you, such as a blood glucose level that is too low or too high.

JuniorSTAR delivers APIDRA in 0.5 unit dose increments. AllStar PRO delivers APIDRA in 1 unit dose increments.

CAREFULLY FOLLOW THE PACKAGE DIRECTIONS SUPPLIED FOR AllStar PRO and JuniorSTAR TO:

- **HELP AVOID CONTAMINATION AND POSSIBLE INFECTION**
- **OBTAIN AN ACCURATE DOSE.**

Do not reuse needles. INJECTION PENS, CARTRIDGES, NEEDLES, AND SYRINGES MUST NOT BE SHARED. To prevent the possible transmission of disease, never share an injection pen or APIDRA cartridge between patients, even if the needle on the injection pen is changed.

Preparing the APIDRA Cartridge for Insertion into the injection pen

1. To avoid medication errors, check the cartridge label of the insulin before each insertion.
2. Inspect the insulin cartridge. APIDRA should be a clear and colorless solution with no visible particles. Do not use it if you notice anything unusual in the appearance of the solution. Do not use the insulin after the expiry date on the label.
3. Make sure the insulin is at room temperature to minimize local irritation at the injection site.
4. Wash your hands.
5. Carefully follow the injection pen directions for loading the cartridge into the injection pen.

Injecting Each Dose

1. Wash your hands.
2. Inspect the insulin. APIDRA should be a clear and colorless solution with no visible particles. Do not use it if you notice anything unusual in the appearance of solution.
3. It is not necessary to shake or rotate the cartridge inserted into the injection pen before use.
4. Remove the protective cap.
5. Follow the injection pen directions for attaching and changing the needle.
6. Check the cartridge inserted into the injection pen for air bubbles. If bubbles are present, remove them as instructed in the injection pen directions.
7. Follow the injection pen directions for performing the Safety Test or Priming.
8. Set the injection pen to the correct APIDRA dose as instructed in the injection pen directions.
9. There is no relevant difference in absorption of APIDRA between abdominal, thigh, buttock or upper arm subcutaneous injection areas. However, injection sites within an injection area (abdomen, thigh, buttock or upper arm) must be rotated from one injection to the next. This will reduce the risk of skin shrinking or thickening or lumps at the site.
    - **Do not** inject where the skin has pits, is thickened, or has lumps.

- **Do not** inject where the skin is tender, bruised, scaly or hard, or into scars or damaged skin.

10. Cleanse the skin with alcohol where the injection is to be made.
11. Pinch and hold the skin and insert the needle attached to the injection pen as instructed by your health professional.
12. To inject APIDRA, follow the directions for the injection pen.
13. Slowly count to 10 before removing the needle from the injection site and gently apply pressure for several seconds. DO NOT RUB THE AREA.
14. Remove the needle from the injection pen immediately after each injection as instructed in the directions for the injection pen. Dispose of the needle appropriately. Do not reuse the needle.
15. An empty cartridge must never be reused and must be properly discarded.

Usual dose:

The dosage of APIDRA should be individualized and determined based on your health professional's advice in accordance with your needs.

APIDRA should be given by subcutaneous injection within 15 minutes before a meal or within 20 minutes after starting a meal.

Many factors may affect your usual APIDRA dose, which may include changes in your diet, activity, or work schedule. Follow your health professional's instructions carefully. Consult your health professional if you notice your insulin requirements changing markedly. Other factors that may affect your dose of insulin or your need to do additional blood/urine testing are:

Illness

Illness, especially with nausea and vomiting, diarrhea and/or fever, may change how much insulin you need. Even if you are not eating, you will still require insulin. You and your health professional should establish a sick day plan for you to use in case of illness. When you are sick, test your blood/urine frequently and call your health professional as instructed.

Pregnancy

If you are planning to have a baby, are pregnant, or are nursing a baby, consult your health professional. Good control of diabetes is especially important for you and your unborn baby. Pregnancy may make managing your diabetes more difficult.

Medication

Always discuss any medications you are taking, prescription or "over-the-counter", with your health professional (see section above: **The following may interact with APIDRA**). To prevent drug interactions, volunteer the names of everything you are taking even before they ask if there have been any changes.

Exercise

If your exercise routine changes, discuss with your health professional the possible need to adjust your insulin regimen. Exercise may lower your body's need for insulin during and for some time after the activity. As for all insulins, the rate of absorption, and consequently the onset and duration of action, may be affected by exercise and other variables.

Travel

Consult your health professional concerning possible adjustments in your insulin schedule if you will be

traveling across time zones. You may want to take along extra insulin and supplies whenever you travel.

Overdose:

If you have injected too much APIDRA, your blood sugar level may become too low (hypoglycemia). Check your blood sugar frequently. In general, to prevent hypoglycemia you must eat more food and monitor your blood sugar. For information on the treatment of hypoglycemia, see "Common problems of diabetes" below.

Hypoglycemia may occur as a result of an excess of insulin relative to food intake, energy expenditure, or both.

In severe cases, coma, seizure and brain disorders may be seen and treated with glucagon (injected in the muscle or subcutaneous tissue) or glucose (injected in the vein).

You should continue checking your blood sugar even if you feel better because hypoglycemia may recur.

If you think you have taken too much APIDRA, contact your healthcare professional, hospital emergency department or regional poison control centre immediately, even if there are no symptoms.

Missed Dose:

If you have **missed a dose of APIDRA** or **if you have not injected enough insulin**, your blood sugar level may become too high (hyperglycemia). Check your blood sugar frequently. For information on the treatment of hyperglycemia, see "Common problems of diabetes" below.

Do not take a double dose to make up for a forgotten dose.

What are possible side effects from using APIDRA?

These are not all the possible side effects you may feel when taking APIDRA. If you experience any side effects not listed here, contact your healthcare professional. Please also see SERIOUS WARNINGS AND PRECAUTIONS BOX above.

Common problems of diabetes

Hypoglycemia (Insulin Reaction)

Hypoglycemia (too little glucose in the blood) is one of the most frequent adverse events experienced by insulin users. It can be brought on by situations such as:

- intercurrent conditions (illness, stress, or emotional disturbances),
- accidental injection of an increased insulin dose,
- malfunction and/or misuse of medical devices,
- too-low food intake, or skipped meals,
- an increase in exercise,
- a new insulin type or schedule,
- some new medications, including prescriptions, over-the counter medications, herbs, vitamins and street drugs.

Symptoms of mild to moderate hypoglycemia may occur suddenly and can include:

- abnormal behavior (anxiety, irritability, restlessness, trouble concentrating, personality changes, mood changes, confusion or nervousness),
- fatigue,
- tingling in your hands, feet, lips, or tongue,

- tremor (shaking),
- unsteady gait (walking),
- dizziness, light-headedness, or drowsiness,
- headache,
- blurred vision,
- slurred speech,
- palpitations (rapid heartbeat),
- cold sweat,
- pale skin,
- nightmares or trouble sleeping,
- nausea,
- hunger.

Mild to moderate hypoglycemia can be treated by consuming foods or drinks that contain sugar. Patients should always carry a quick source of sugar, such as candy, juice or glucose tablets, prominently labelled for rescuers. Contact your health professional about appropriate proportions of carbohydrates.

Signs of severe hypoglycemia can include:

- disorientation,
- convulsions,
- loss of consciousness,
- seizures.

Severe hypoglycemia may require the assistance of another person. Patients who are unable to take sugar orally or who are unconscious may require an injection of glucagon or should be treated with intravenous administration of glucose by medical personnel. Without immediate medical help, serious reactions or even death could occur.

The early warning symptoms of hypoglycemia may be changed, be less pronounced, or be absent, as for example, in patients whose sugar levels are markedly improved, in elderly patients, in patients with diabetic nerve disease, in patients with a long history of diabetes, or in patients receiving concurrent treatment with certain other drugs. Such situations may result in severe hypoglycemia (and possibly, loss of consciousness) before a patient has symptoms.

Some people may not recognize when their blood sugar drops low. Without recognition of early warning symptoms, you may not be able to take steps to avoid more serious hypoglycemia. Be alert for all of the various types of symptoms that may indicate hypoglycemia. Patients who experience hypoglycemia without early warning symptoms should monitor their blood glucose frequently, especially prior to activities such as driving a car or use mechanical equipment. If the blood glucose is below your normal fasting glucose, you should consider eating or drinking sugar-containing foods to treat your hypoglycemia.

If you have frequent episodes of hypoglycemia or experience difficulty in recognizing the symptoms, you should consult your health professional to discuss possible changes in therapy, meal plans, and/or exercise programs to help you avoid hypoglycemia.

Hyperglycemia

Hyperglycemia (too much glucose in the blood) may develop if your body has too little insulin.

Hyperglycemia can be brought about by:

- intercurrent conditions (illness, stress, or emotional disturbances),
- not taking your insulin or taking less than recommended by your health professional,
- malfunction and/or misuse of medical devices,
- eating significantly more than your meal plan suggests,
- a new insulin type or schedule,
- some new medications, including prescriptions, over-the counter medications, herbs, vitamins and street drugs.

Symptoms of hyperglycemia include:

- confusion or drowsiness,
- increased thirst,
- decreased appetite, nausea, or vomiting,
- rapid heart rate,
- increased urination and dehydration (too little fluid in your body),
- blurred vision,
- flushed dry skin,
- acetone odour of breath.

Hyperglycemia can be mild or severe. It can progress to high glucose levels, diabetic ketoacidosis (DKA), and result in unconsciousness and death.

Diabetic ketoacidosis (DKA)

The first symptoms of diabetic ketoacidosis usually come on over a period of hours or days. With ketoacidosis, urine tests show large amounts of glucose and acetone.

Symptoms of diabetic ketoacidosis include:

First symptoms:

- drowsiness,
- flushed face,
- thirst,
- loss of appetite,
- fruity smelling breath,
- rapid, deep breathing,
- abdominal (stomach area) pain.

Severe symptoms:

- heavy breathing,
- rapid pulse.

Prolonged hyperglycemia or diabetic ketoacidosis can lead to:

- nausea,
- vomiting,
- dehydration,
- loss of consciousness,
- death.

Severe or continuing hyperglycemia or DKA requires prompt evaluation and treatment by your health professional.

Allergic reactions

In rare cases, a patient may be allergic to an insulin product. Severe insulin allergies may be life-threatening. If you think you are having an allergic reaction, seek medical help immediately.

Signs of insulin allergy include:

- a rash all over your body,
- shortness of breath,
- wheezing (trouble breathing),
- a fast pulse,
- sweating,
- low blood pressure.

Possible reactions on the skin at the injection site

Injecting insulin can cause the following reactions on the skin at the injection site:

- a little depression in the skin (lipoatrophy),
- skin thickening (lipohypertrophy),
- skin lumps (localized cutaneous amyloidosis),
- redness, itching, swelling, or hemorrhage at injection site.

You can reduce the chance of getting an injection site reaction if you change the injection site each time. If you have local injection site reactions, contact your health professional as a sudden change of site may result in hypoglycemia.

In some instances, these reactions may be related to factors other than insulin, such as irritants in the skin cleansing agent or poor injection technique.

If you have a troublesome symptom or side effect that is not listed here or becomes bad enough to interfere with your daily activities, talk to your healthcare professional.

Reporting Side Effects

You can report any suspected side effects associated with the use of health products to Health Canada by:

- Visiting the Web page on Adverse Reaction Reporting (https://www.canada.ca/en/health-canada/services/drugs-health-products/medeffect-canada.html) for information on how to report online, by mail or by fax; or
- Calling toll-free at 1-866-234-2345.

NOTE: Contact your health professional if you need information about how to manage your side effects. The Canada Vigilance Program does not provide medical advice.

Storage:

Unopened Cartridge:
Unopened APIDRA cartridges should be stored in a refrigerator, between 2°C and 8°C. Keep APIDRA away from direct heat and light. APIDRA should not be stored in the freezer and should not be allowed to freeze. If APIDRA freezes or overheats, discard it.

Opened (In Use) Cartridge:
The opened cartridge in use must be kept unrefrigerated (15 to 25°C) for up to 28 days away from direct heat and light, as long as the temperature is not greater than 25°C. If the cartridge overheats or if there is any remaining insulin after 28 days, discard it. The opened cartridge in use must never be removed from and reinserted into the injection pen.

Do not use a cartridge of APIDRA after the expiration date stamped on the label or if it is cloudy or if you see particles.

Keep out of reach and sight of children.

If you want more information about APIDRA:

- Talk to your healthcare professional.
- Find the full product monograph that is prepared for healthcare professionals and includes this Patient Medication Information by visiting the Health Canada website: (https://www.canada.ca/en/health-canada/services/drugs-health-products/drug-products/drug-product-database.html; the manufacturer's website http://www.sanofi.ca, or by calling 1-888-852-6887.

This document plus the full product monograph, prepared for health professionals can be found at www.sanofi.ca or by contacting the sponsor, sanofi-aventis Canada Inc., at: 1-888-852-6887. It is also available in large print format.

This leaflet was prepared by sanofi-aventis Canada Inc.

Last revised: December 01, 2021

PATIENT MEDICATION INFORMATION - APIDRA® SOLOSTAR®

READ THIS FOR SAFE AND EFFECTIVE USE OF YOUR MEDICINE

APIDRA® SoloSTAR®

insulin glulisine injection (rDNA origin)

Read this carefully before you start taking **APIDRA** and each time you get a refill. This leaflet is a summary and will not tell you everything about this drug. Talk to your healthcare professional about your medical condition and treatment and ask if there is any new information about **APIDRA**.

Serious Warnings and Precautions

- Hypoglycemia (low blood sugar) is the most common adverse effect of insulin, including APIDRA.
- Blood glucose (blood sugar) monitoring is recommended for all patients with diabetes.
- Uncorrected hypoglycemic (low blood sugar) or hyperglycemic (high blood sugar) reactions can cause loss of consciousness, coma, or death.
- Any change of insulin should be made cautiously and only under medical supervision. This may result in dosage adjustment.
- When used as a meal time insulin, the dose of APIDRA should be given within 15 minutes before or within 20 minutes after starting a meal.
- APIDRA given by subcutaneous injection should generally be used in regimens with an intermediate or long-acting insulin. APIDRA can also be used alone in insulin infusion pump therapy to maintain adequate glucose control.
- APIDRA can be mixed with NPH human insulin (except when administered with pump).
- Insulin products shall not be used if it is not water-clear and colourless or if it has formed a deposit of solid particles on the wall of the vial or cartridge.

What is APIDRA used for?

APIDRA [insulin glulisine injection (rDNA origin)] is an antidiabetic agent (short-acting recombinant human insulin analogue), used to reduce high blood sugar in adults and children (6 years or older) with diabetes mellitus.

How does APIDRA work?

Insulin is a hormone produced by the pancreas, a large gland that lies near the stomach. This hormone is necessary for the body's correct use of food, especially sugar. Diabetes occurs when the pancreas does not make enough insulin to meet your body's needs or when your body cannot use properly the insulin you normally produce.

When your body does not make enough insulin, you need an external source of insulin. That is why you must take insulin injections. APIDRA is similar to the insulin made by your body.

APIDRA has a rapid onset of action and a short duration of about 4 hours. APIDRA should normally be used with a longer-acting insulin to maintain adequate blood sugar. APIDRA can also be used with oral drugs to reduce blood sugar.

You have been instructed to test your blood and/or your urine regularly for glucose (sugar); it is especially important to test even more often when changing insulins or dosing schedule. If your blood tests consistently show above- or below-normal glucose levels, or your urine tests consistently show

the presence of glucose, your diabetes is not properly controlled and you must let your health professional know.

What are the ingredients in APIDRA?

Medicinal ingredients: Insulin glulisine, (rDNA origin)

Non-medicinal ingredients: m-cresol, polysorbate 20, sodium chloride, trometamol, water, and hydrochloric acid and sodium hydroxide for pH adjustment

APIDRA comes in the following dosage forms:

Solution for injection 100 U/mL

Do not use APIDRA if:

- if you are allergic to this drug or to any ingredient in the formulation or component of the container.
- if your blood sugar is too low (hypoglycemia). After treating your low blood sugar, follow your health care provider's instructions on the use of APIDRA.

To help avoid side effects and ensure proper use, talk to your healthcare professional before you take APIDRA. Talk about any health conditions or problems you may have, including if:

- you are planning to have a baby, are pregnant, or are nursing a baby;
- you drink alcohol;
- you are ill;
- you exercise more than usual or if you want to change your usual diet;
- you are traveling;
- you drive or use tools or machine;
- you have trouble with your kidneys or liver;
- you are taking any other medication;

If you have vision changes (diabetic retinopathy) and your blood glucose levels improve very fast, the vision changes may get worse. Ask your doctor about this.

Your ability to concentrate or react may be reduced if you have hypoglycemia (low blood sugar) or hyperglycemia (high blood sugar). Please keep these possible problems in mind in all situations where you might put yourself or others at risk (for example driving a car or operating machinery).

You should contact your doctor about the advisability of driving if you have:

- frequent episodes of hypoglycemia
- reduced or absent warning signs of hypoglycemia.

Hypokalemia (low potassium) is a possible side effect. You might be more at risk if you are on potassium lowering drugs or losing potassium (e.g. diarrhea).

The injection site should be rotated to prevent skin changes such as lumps under the skin. The insulin may not work very well if you inject into a lumpy area (see How to take APIDRA). Contact your health professional if you develop skin changes at the injection site or if you are currently injecting into a lumpy area before you start injecting in a different area. A sudden change of site may result in hypoglycemia. Your health professional may tell you to check your blood sugar more closely, and to adjust your insulin or your other antidiabetic medications dose.

Always keep an extra supply of insulin as well as the appropriate injection supplies on hand. Always wear medical alert identification and carry information about your diabetes so that appropriate treatment can be given if complications occur away from home.

Accidental mix-ups between insulin glulisine and other insulins, particularly long-acting insulins, have been reported. To avoid medication errors between insulin glulisine and other insulins, patients should be instructed to always check the insulin label before each injection.

Your needles and syringes are only for you and must not be shared to avoid disease transmission.

Other warnings you should know about:

The use of thiazolidinediones (such as rosiglitazone and pioglitazone), alone or in combination with other antidiabetic agents (including insulin), has been associated with heart failure and swelling of the lower extremities. Please contact your physician immediately if you develop symptoms of shortness of breath, fatigue, exercise intolerance, or swelling of the lower extremities while you are on these agents.

If you also take other oral drugs to reduce your blood sugar, their dose may need to be adjusted.

Insulin injections play an important role in keeping your diabetes under control. But the way you live – your diet, careful monitoring of your glucose levels, exercise, or planned physical activity and following your health professional's recommendations – all work with your insulin to help you control your diabetes.

In some situations, your need in insulin may change, for example if you are stress or suffering from other illnesses (e.g. infections).

Your diabetes may also be more difficult to control if you suffer from acromegaly (too much growth hormone), Cushing's syndrome (too much cortisol hormone), hyperthyroidism (too much thyroid hormone) or have a pheochromocytoma (tumor of the adrenal glands).

Tell your healthcare professional about all the medicines you take, including any drugs, vitamins, minerals, natural supplements or alternative medicines.

The following may interact with APIDRA:

- drugs that can increase blood sugar (drugs with hyperglycemic activity):
    - contraceptives (birth control pills, injections and patches)
    - hormone replacement therapies
    - corticosteroids
    - thyroid replacement therapy
    - sympathomimetic agents (such as decongestants and diet pills)
- drugs that can lower blood glucose (drugs with hypoglycemic activity):
    - oral antidiabetic agents
    - salicylates (aspirin)
    - sulfa antibiotics
    - blood pressure medications (including ACE inhibitors, beta-blockers)
    - psychiatric medications (including MAO inhibitors, antidepressants, anti-anxiety medications)
- alcohol

Substances including beta-blockers, used for conditions including blood pressure, heart arrhythmias, palpitations and headache, and alcohol may enhance or weaken the blood-glucose-lowering effect of insulins, and signs of hypoglycemia may be reduced or absent.

Other medicines, including non-prescription medicines, and dietary supplements (such as vitamins) can change the way insulin works. Your dose of insulin or other medications may need to be changed in consultation with your healthcare professional.

How to take APIDRA:

Your doctor has recommended the type of insulin that he/she believes is best for you. DO NOT USE ANY OTHER INSULIN EXCEPT ON THE ADVICE AND DIRECTION OF YOUR DOCTOR.

CAREFULLY FOLLOW THE PACKAGE DIRECTIONS SUPPLIED WITH THE SOLOSTAR TO:

- **HELP AVOID CONTAMINATION AND POSSIBLE INFECTION**
- **OBTAIN AN ACCURATE DOSE.**

Do not reuse needles. INJECTION PENS, CARTRIDGES, NEEDLES, AND SYRINGES MUST NOT BE SHARED. To prevent the possible transmission of disease, this injection pen is for single patient use. Do not share it with anyone including other family members, even if the needle on the injection pen is changed. Do not use on multiple patients.

Preparing the Dose

1. To avoid medication errors, check the label on the SoloSTAR pen to make sure you have the correct insulin. The APIDRA SoloSTAR is blue.
2. Inspect the insulin. APIDRA should be a clear and colorless solution with no visible particles. Do not use it if you notice anything unusual in the appearance of the solution. Do not use the insulin after the expiry date on the label.
3. Make sure the insulin is at room temperature to minimize local irritation at the injection site.
4. Wash your hands.
5. It is not necessary to shake or rotate the SoloSTAR before use.
6. Remove the protective cap.
7. **Follow the SoloSTAR directions for attaching and changing the needle.**
8. Check the SoloSTAR for air bubbles. If bubbles are present, remove them as instructed in the SoloSTAR directions.
9. **Follow the SoloSTAR directions for performing the Safety Test.**
10. Set the SoloSTAR to the correct APIDRA dose as instructed in the SoloSTAR directions.
11. There is no relevant difference in absorption of APIDRA between abdominal, thigh, buttock or upper arm subcutaneous injection areas. However, injection sites within an injection area (abdomen, thigh, buttock or upper arm) must be rotated from one injection to the next. This will reduce the risk of skin shrinking or thickening or lumps at the site.
    - **Do not** inject where the skin has pits, is thickened, or has lumps.
    - **Do not** inject where the skin is tender, bruised, scaly or hard, or into scars or damaged skin.
12. Cleanse the skin with alcohol where the injection is to be made.
13. Pinch and hold the skin and insert the needle attached to the SoloSTAR as instructed by your health professional.
14. To inject APIDRA, follow the directions for the SoloSTAR.
15. Slowly count to 10 before removing the needle from the injection site and gently apply pressure for several seconds. DO NOT RUB THE AREA.

16. Remove the needle from the SoloSTAR immediately after each injection as instructed in the directions for the SoloSTAR. Dispose of the needle appropriately. Do not reuse the needle.

Usual dose:

The dosage of APIDRA should be individualized and determined based on your health professional's advice in accordance with your needs.

APIDRA should be given by subcutaneous injection within 15 minutes before a meal or within 20 minutes after starting a meal.

Many factors may affect your usual APIDRA dose, which may include changes in your diet, activity, or work schedule. Follow your health professional's instructions carefully. Consult your health professional if you notice your insulin requirements changing markedly. Other factors that may affect your dose of insulin or your need to do additional blood/urine testing are:

Illness

Illness, especially with nausea and vomiting, diarrhea and/or fever, may change how much insulin you need. Even if you are not eating, you will still require insulin. You and your health professional should establish a sick day plan for you to use in case of illness. When you are sick, test your blood/urine frequently and call your health professional as instructed.

Pregnancy

If you are planning to have a baby, are pregnant, or are nursing a baby, consult your health professional. Good control of diabetes is especially important for you and your unborn baby. Pregnancy may make managing your diabetes more difficult.

Medication

Always discuss any medications you are taking, prescription or "over-the-counter", with your health professional (see section above: **The following may interact with APIDRA**). To prevent drug interactions, volunteer the names of everything you are taking even before they ask if there have been any changes.

Exercise

If your exercise routine changes, discuss with your health professional the possible need to adjust your insulin regimen. Exercise may lower your body's need for insulin during and for some time after the activity. As for all insulins, the rate of absorption, and consequently the onset and duration of action, may be affected by exercise and other variables.

Travel

Consult your health professional concerning possible adjustments in your insulin schedule if you will be traveling across time zones. You may want to take along extra insulin and supplies whenever you travel.

Overdose:

If you have **injected too much APIDRA**, your blood sugar level may become too low (hypoglycemia). Check your blood sugar frequently. In general, to prevent hypoglycemia you must eat more food and monitor your blood sugar. For information on the treatment of hypoglycemia, **see "Common problems of diabetes" below.**

Hypoglycemia may occur as a result of an excess of insulin relative to food intake, energy expenditure, or both.

In severe cases, coma, seizure and brain disorders may be seen and treated with glucagon (injected in the muscle or subcutaneous tissue) or glucose (injected in the vein).

You should continue checking your blood sugar even if you feel better because hypoglycemia may recur.

If you think you have taken too much APIDRA, contact your healthcare professional, hospital emergency department or regional poison control centre immediately, even if there are no symptoms.

Missed Dose:

If you have **missed a dose of APIDRA** or **if you have not injected enough insulin**, your blood sugar level may become too high (hyperglycemia). Check your blood sugar frequently. For information on the treatment of hyperglycemia, **see "Common problems of diabetes" below.**

Do not take a double dose to make up for a forgotten dose.

What are possible side effects from using APIDRA?

These are not all the possible side effects you may feel when taking APIDRA. If you experience any side effects not listed here, contact your healthcare professional. Please also see SERIOUS WARNINGS AND PRECAUTIONS BOX above.

Common problems of diabetes

Hypoglycemia (Insulin Reaction)

Hypoglycemia (too little glucose in the blood) is one of the most frequent adverse events experienced by insulin users. It can be brought on by situations such as:

- intercurrent conditions (illness, stress, or emotional disturbances),
- accidental injection of an increased insulin dose,
- malfunction and/or misuse of medical devices,
- too-low food intake, or skipped meals,
- an increase in exercise,
- a new insulin type or schedule,
- some new medications, including prescriptions, over-the counter medications, herbs, vitamins and street drugs.

Symptoms of mild to moderate hypoglycemia may occur suddenly and can include:

- abnormal behavior (anxiety, irritability, restlessness, trouble concentrating, personality changes, mood changes, confusion or nervousness),
- fatigue,
- tingling in your hands, feet, lips, or tongue,
- tremor (shaking),
- unsteady gait (walking),
- dizziness, light-headedness, or drowsiness,
- headache,
- blurred vision,
- slurred speech,
- palpitations (rapid heartbeat),
- cold sweat,
- pale skin,

- nightmares or trouble sleeping,
- nausea,
- hunger.

Mild to moderate hypoglycemia can be treated by consuming foods or drinks that contain sugar. Patients should always carry a quick source of sugar, such as candy, juice or glucose tablets, prominently labelled for rescuers. Contact your health professional about appropriate proportions of carbohydrates.

Signs of severe hypoglycemia can include:

- disorientation,
- convulsions,
- loss of consciousness,
- seizures.

Severe hypoglycemia may require the assistance of another person. Patients who are unable to take sugar orally or who are unconscious may require an injection of glucagon or should be treated with intravenous administration of glucose by medical personnel. Without immediate medical help, serious reactions or even death could occur.

The early warning symptoms of hypoglycemia may be changed, be less pronounced, or be absent, as for example, in patients whose sugar levels are markedly improved, in elderly patients, in patients with diabetic nerve disease, in patients with a long history of diabetes, or in patients receiving concurrent treatment with certain other drugs. Such situations may result in severe hypoglycemia (and possibly, loss of consciousness) before a patient has symptoms.

Some people may not recognize when their blood sugar drops low. Without recognition of early warning symptoms, you may not be able to take steps to avoid more serious hypoglycemia. Be alert for all of the various types of symptoms that may indicate hypoglycemia. Patients who experience hypoglycemia without early warning symptoms should monitor their blood glucose frequently, especially prior to activities such as driving a car or use mechanical equipment. If the blood glucose is below your normal fasting glucose, you should consider eating or drinking sugar-containing foods to treat your hypoglycemia.

If you have frequent episodes of hypoglycemia or experience difficulty in recognizing the symptoms, you should consult your health professional to discuss possible changes in therapy, meal plans, and/or exercise programs to help you avoid hypoglycemia.

Hyperglycemia

Hyperglycemia (too much glucose in the blood) may develop if your body has too little insulin.

Hyperglycemia can be brought about by:

- intercurrent conditions (illness, stress, or emotional disturbances),
- not taking your insulin or taking less than recommended by your health professional,
- malfunction and/or misuse of medical devices,
- eating significantly more than your meal plan suggests,
- a new insulin type or schedule,
- some new medications, including prescriptions, over-the counter medications, herbs, vitamins and street drugs.

Symptoms of hyperglycemia include:

- confusion or drowsiness,

- increased thirst,
- decreased appetite, nausea, or vomiting,
- rapid heart rate,
- increased urination and dehydration (too little fluid in your body),
- blurred vision,
- flushed dry skin,
- acetone odour of breath.

Hyperglycemia can be mild or severe. It can **progress to high glucose levels, diabetic ketoacidosis (DKA), and result in unconsciousness and death.**

Diabetic ketoacidosis (DKA)

The first symptoms of diabetic ketoacidosis usually come on over a period of hours or days. With ketoacidosis, urine tests show large amounts of glucose and acetone.

Symptoms of diabetic ketoacidosis include:

First symptoms:
- drowsiness,
- flushed face,
- thirst,
- loss of appetite,
- fruity smelling breath,
- rapid, deep breathing,
- abdominal (stomach area) pain.

Severe symptoms:
- heavy breathing,
- rapid pulse.

Prolonged hyperglycemia or diabetic ketoacidosis can lead to:
- nausea,
- vomiting,
- dehydration,
- loss of consciousness,
- death.

Severe or continuing hyperglycemia or DKA requires prompt evaluation and treatment by your health professional.

Allergic reactions

In rare cases, a patient may be allergic to an insulin product. Severe insulin allergies may be life-threatening. If you think you are having an allergic reaction, seek medical help immediately.

Signs of insulin allergy include:
- a rash all over your body,
- shortness of breath,
- wheezing (trouble breathing),
- a fast pulse,
- sweating,

- low blood pressure.

Possible reactions on the skin at the injection site

Injecting insulin can cause the following reactions on the skin at the injection site:

- a little depression in the skin (lipoatrophy),
- skin thickening (lipohypertrophy),
- skin lumps (localized cutaneous amyloidosis),
- redness, itching, swelling, or hemorrhage at injection site.

You can reduce the chance of getting an injection site reaction if you change the injection site each time. If you have local injection site reactions, contact your health professional as a sudden change of site may result in hypoglycemia.

In some instances, these reactions may be related to factors other than insulin, such as irritants in the skin cleansing agent or poor injection technique.

If you have a troublesome symptom or side effect that is not listed here or becomes bad enough to interfere with your daily activities, talk to your healthcare professional.

Reporting Side Effects

You can report any suspected side effects associated with the use of health products to Health Canada by:

- Visiting the Web page on Adverse Reaction Reporting (https://www.canada.ca/en/health-canada/services/drugs-health-products/medeffect-canada.html) for information on how to report online, by mail or by fax; or
- Calling toll-free at 1-866-234-2345.

NOTE: Contact your health professional if you need information about how to manage your side effects. The Canada Vigilance Program does not provide medical advice.

Storage:

Unopened SoloSTAR:
Unopened APIDRA SoloSTAR should be stored in a refrigerator, between 2°C and 8°C. Keep APIDRA SoloSTAR away from direct heat and light. APIDRA SoloSTAR should not be stored in the freezer and should not be allowed to freeze. If APIDRA SoloSTAR freezes or overheats, discard it

Opened (In Use) SoloSTAR:
Opened APIDRA SoloSTAR in use must be kept unrefrigerated (15 to 25°C) for up to 28 days away from direct heat and light, as long as the temperature is not greater than 25°C. If the APIDRA SoloSTAR overheats or if there is any remaining insulin after 28 days, discard it.

Opened APIDRA SoloSTAR should not be stored in the freezer and should not be allowed to freeze. If APIDRA SoloSTAR freezes discard it.

Do not use an APIDRA SoloSTAR after the expiration date stamped on the label or if it is cloudy or if you see particles.

Keep out of reach and sight of children**.**

If you want more information about APIDRA:

- Talk to your healthcare professional
- Find the full product monograph that is prepared for healthcare professionals and includes this Patient Medication Information by visiting the Health Canada website: (https://www.canada.ca/en/health-canada/services/drugs-health-products/drug-products/drug-product-database.html; the manufacturer's website http://www.sanofi.ca, or by calling 1-888-852-6887.

This document plus the full product monograph, prepared for health professionals can be found at www.sanofi.ca or by contacting the sponsor, sanofi-aventis Canada Inc., at: 1-888-852-6887. It is also available in large print format.

This leaflet was prepared by sanofi-aventis Canada Inc.

Last revised: December 01, 2021

INSTRUCTIONS FOR USE: APIDRA® SOLOSTAR ®

SoloSTAR® is a prefilled pen for the injection of insulin. Your health professional has decided that SoloSTAR is appropriate for you, based on your ability to handle SoloSTAR. Talk with your health professional about proper injection technique before using SoloSTAR.

Read these instructions carefully before using your SoloSTAR. If you are not able to use SoloSTAR or to follow all the instructions completely on your own, you must use SoloSTAR only if you have help from a person who is able to follow the instructions completely.

Keep this leaflet for future reference.

If you have any questions about SoloSTAR or about diabetes, ask your health professional or call sanofi-aventis at 1-888-852-6887.

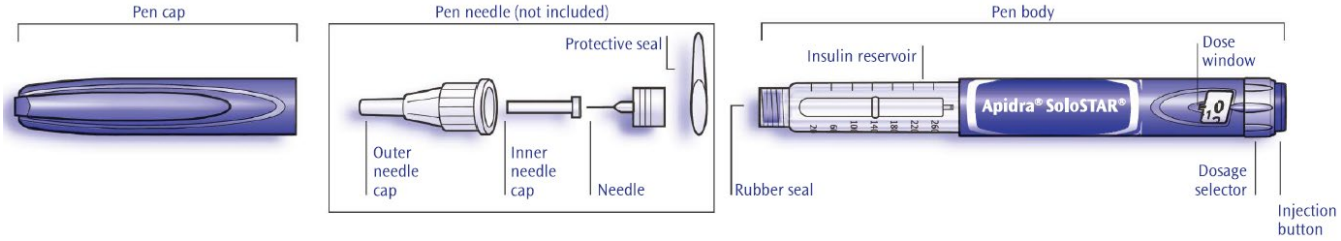
IMPORTANT INFORMATION FOR USE OF SOLOSTAR:

- To avoid transmission of disease do not share injection pens, cartridges, needles or syringes. This injection pen is for single patient use. Do not share it with anyone including other family members, even if the needle on the injection pen is changed. Do not use on multiple patients.
- Always attach a new needle before each use. Needles are available in different lengths and gauges. Only use needles that have been approved for use with SoloSTAR. Contact your health professional for further information.
- Do not select a dose and/or press the injection button without a needle attached.
- Always perform the safety test before each injection (see Step 3).
- If your injection is given by another person, special caution must be taken by this person to avoid accidental needle injury and transmission of infection.
- Never use SoloSTAR if it is damaged or if you are not sure that it is working properly.
- Always have a spare SoloSTAR in case your SoloSTAR is lost or damaged.

Check the pen

Hold the pen as shown in this leaflet. To ensure that you read the dose correctly, hold the pen horizontally, with the needle on the left and the dosage selector to the right as shown in the illustrations below.

Each SoloSTAR contains in total 300 units of insulin. You can set doses from 1 to 80 units in steps of 1 unit. Each pen contains multiple doses.



Step 1: Check the insulin

A. Check the label on your SoloSTAR to make sure you have the correct insulin. The Apidra SoloSTAR is blue. It has a dark blue injection button with a raised ring on the top. Check the expiry date printed on the label of your pen. Do not use your Apidra SoloSTAR after the expiration date.

B. Take off the pen cap.

C. Check the appearance of your insulin. Apidra is a clear insulin. Do not use this SoloSTAR if the insulin is cloudy, colored or has particles.

Step 2: Attach the needle

Always use a new sterile needle for each injection. This helps prevent contamination, and potential needle blocks.

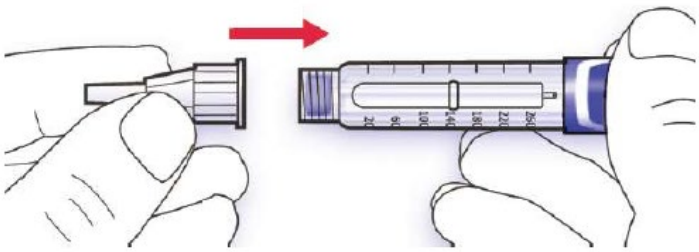
Before use of needle, carefully read "Instructions for Use" accompanying the needles.

Please note: The needles shown are for illustrative purposes only.

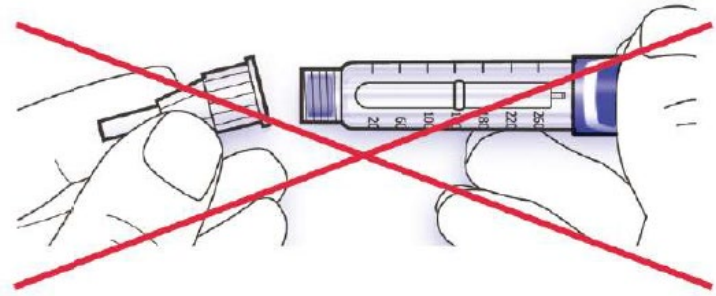
A. Wipe the rubber seal with alcohol.

B. Remove the protective seal from a new needle.

C. Line up the needle with the pen, and keep it straight as you attach it (screw or push on, depending on the needle type).



- If the needle is not kept straight while you attach it, it can damage the rubber seal and cause leakage, or break the needle.

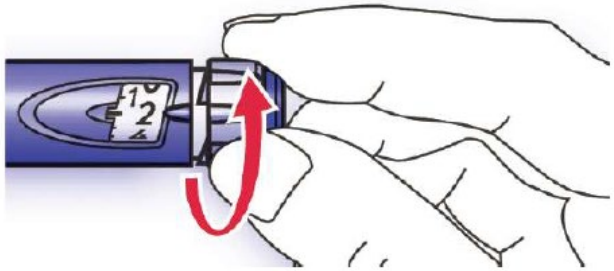


Step 3: Perform a safety test

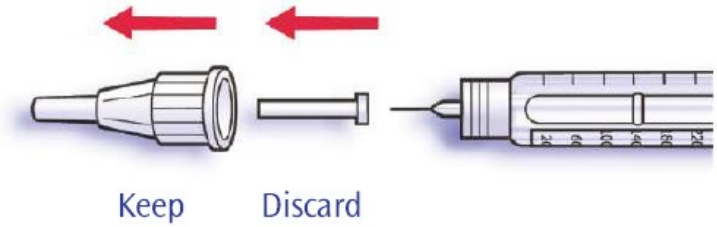
Always perform the safety test before each injection. This ensures that you get an accurate dose by:

- ensuring that pen and needle work properly
- removing air bubbles

A. Select a dose of 2 units by turning the dosage selector clockwise.



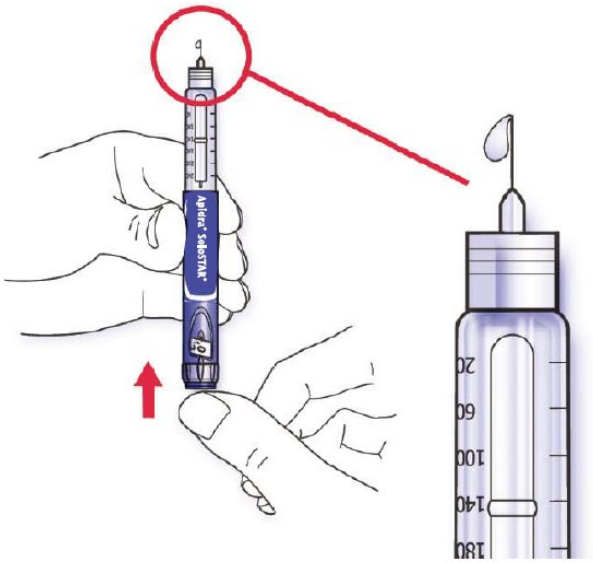
B. Take off the outer needle cap and keep it to remove the used needle after injection. Take off the inner needle cap and discard it.



C. Hold the pen with the needle pointing upwards.

D. Tap the insulin reservoir so that any air bubbles rise up towards the needle.

E. Press the injection button all the way in. Check if insulin comes out of the needle tip.



You may have to perform the safety test several times before insulin is seen.

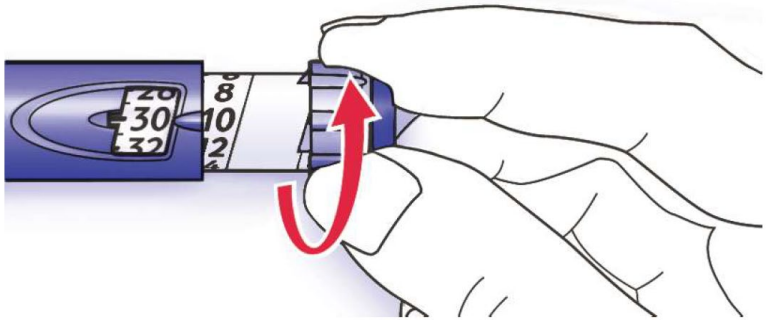
- If no insulin comes out, check for air bubbles and repeat the safety test two more times to remove them.
- If still no insulin comes out, the needle may be blocked. Change the needle and try again.
- If no insulin comes out after changing the needle, your SoloSTAR may be damaged. Do not use this SoloSTAR, as you could get no insulin at all. This could cause high blood sugar.

Step 4: Select the dose

You can set the dose in steps of 1 unit, from a minimum of 1 unit to a maximum of 80 units. If you need a dose greater than 80 units, you should give it as two or more injections.

A. Check that the dose window shows "0" following the safety test.

B. Select your required dose turning the dosage selector clockwise (in the example below, the selected dose is 30 units). If you turn past your dose, you can turn back down. (counter-clockwise).



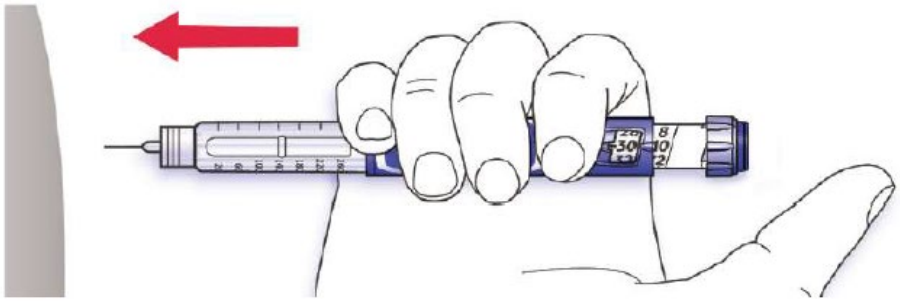
- Do not push the injection button while turning, as insulin will come out.
- You cannot turn the dosage selector past the number of units left in the pen. Do not force the dosage selector to turn. In this case, either you can inject what is remaining in the pen and complete your dose with a new SoloSTAR or use a new SoloSTAR for your full dose.

Step 5: Inject the dose

A. Clean the area of skin to be injected (e.g. with rubbing alcohol).

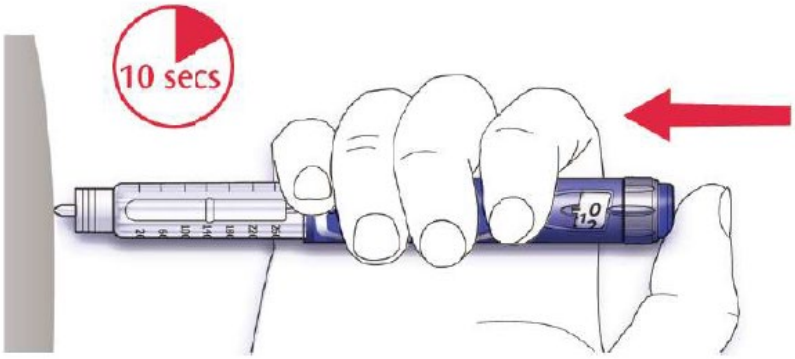
B. Use the injection method as instructed by your health professional.

C. Insert the needle into the skin.



D. Deliver the dose by pressing the injection button in all the way. The number in the dose window will progressively return to "0" as you inject.

E. Keep the injection button pressed all the way in. Slowly count to 10 before you withdraw the needle from the skin. This ensures that the full dose will be delivered.



The pen plunger moves with each dose. The plunger will reach the end of the cartridge when the total of 300 units of insulin has been used.

Step 6: Remove and discard the needle

Always remove the needle after each injection and store SoloSTAR without a needle attached. This helps prevent:

- Contamination and/or infection
- Entry of air into the insulin reservoir and leakage of insulin, which can cause inaccurate dosing.

A. Put the outer needle cap back on the needle, and use it to unscrew the needle from the pen. To reduce the risk of accidental needle injury, never replace the inner needle cap.

- Grip the widest part of the outer needle cap. Keep the needle straight and guide it into the outer needle cap back and push firmly on. The needle can puncture the cap if it is recapped at an angle
- Grip and squeeze the widest part of the outer need cap. Turn your pen several times with your other hand to remove the needle. Try again if the needle does not come off the first time.
- If your injection is given by another person, or if you are giving an injection to another person, special caution must be taken by this person when removing and disposing of the needle. Follow recommended safety measures for removal and disposal of needles (e.g. contact your health professional) in order to reduce the risk of accidental needle injury and transmisison of infectious diseases.

B. Dispose of the needle safely. Used needles should be placed in sharps containers (such as biohazard containers), hard plastic containers (such as detergent bottles), or metal containers (such as an empty coffee can). Such containers should be sealed and disposed of properly.

C. Always put the pen cap back on the pen, then store the pen until your next injection.

STORAGE INSTRUCTIONS

Keep SoloSTAR out of the reach and sight of children.

Keep your SoloSTAR in cool storage (2°C to 8°C) until first use.

Do not allow it to freeze. Do not put it next to the freezer compartment of your refrigerator, or next to a freezer pack.

If your SoloSTAR is in cool storage, take it out 1 to 2 hours before you inject to allow it to warm up. Cold

insulin is more painful to inject.

Once you take your SoloSTAR out of cool storage, for use or as a spare, you can use it for up to 28 days. During this time it should be kept at room temperature (15 to 25°C) and must not be stored in the refrigerator. If there is any remaining insulin after 28 days, discard it.

Do not use SoloSTAR after the expiration date printed on the label of the pen or if it is cloudy, colored or if you see particles.

Protect SoloSTAR from light.

Discard your used SoloSTAR as required by your local authorities

MAINTENANCE

Protect your SoloSTAR from dust and dirt.

You can clean the outside of your SoloSTAR by wiping it with a damp cloth.

Do not soak, wash or lubricate the pen as this may damage it.

Your SoloSTAR is designed to work accurately and safely. It should be handled with care. Avoid situations where SoloSTAR might be damaged. If you are concerned that your SoloSTAR may be damaged, use a new one.

Manufacturer: Sanofi-aventis Deutschland GmbH, D-65926 Frankfurt am Main, Germany
Importer/Distributor: Sanofi-aventis Canada Inc. Laval, Quebec, Canada H7V 0A3

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Call toll free **1-888-852-6887**