

denosumab

Pronunciation: den-OH-sue-mab

Other Name(s): Xgeva®, Wyost™, Osenvelt™

Appearance: clear, colourless to slightly yellowish solution

This handout gives general information about this cancer medication.

You will learn:

- who to contact for help
- what the medication is
- how it is given
- what to expect while on medication



This handout was created by Ontario Health (Cancer Care Ontario) together with patients and their caregivers who have also gone through cancer treatment. It is meant to help support you through your cancer treatment and answer some of your questions.

This information does not replace the advice of your health care team. Always talk to your health care team about your treatment.

Who do I contact if I have questions or need help?

My cancer health care provider is: _____

During the day I should contact: _____

Evenings, weekends and holidays: _____

What is this treatment for?

Denosumab may:

- Help relieve bone pain and prevent broken bones in some types of cancer that arise from or spread to the bones
- Be used to treat giant cell tumour of bone in some patients
- Be used to remove excess calcium in the blood that is a problem with some types of cancer, if other treatments have not worked

Denosumab is available as a biosimilar medication. See our [biosimilar](#) pamphlet for more information.

What should I do before I start this treatment?

Tell your health care team if you have or had significant medical condition(s), especially if you have / had:

- kidney problems,
- low calcium or vitamin D levels,
- any dental problems (including wearing dentures),
- any planned dental work, or
- any allergies.

If you take other medications (such as bisphosphonates or other denosumab products) for bone problems, talk to your health care team.

Tell your dentist that you are on denosumab.



Remember To:

- ✓ Tell your health care team about all of the other medications you are taking.
- ✓ Keep taking other medications that have been prescribed for you, unless you have been told not to by your health care team.

How is this treatment given?

- This drug is given by injection under the skin, in the upper arm, upper thigh, or the abdomen.
- If your health care provider will be injecting the drug for you, ask about the drugs and supplies you will need to bring for your next visit.

Other medications you may be given with this treatment

To prevent your blood calcium level from going down while using this drug, your health care team may tell you to take calcium and vitamin D supplements. Do not take calcium or vitamin D if you have or had high calcium levels in the blood. Talk to your health care team before taking these supplements.

DO this while on treatment

Rarely, some people may have jaw, teeth or mouth problems while using denosumab.

- ✓ DO look for teeth, mouth or jaw problems. You may have pain and swelling, poor healing of mouth sores, unusual discharge from gums, loosening of teeth, and the feeling of numbness or heaviness in the jaw.
- ✓ DO contact your health care team as soon as possible if you get any of these symptoms.
- ✓ DO check with your health care team before getting any dental procedures.
- ✓ DO maintain good dental hygiene and have regular checkups with your dentist, to prevent jaw problems.

DO NOT do this while on treatment

- ✗ DO NOT smoke or drink alcohol while on treatment without talking to your health care team first. Smoking and drinking can make side effects worse and make your treatment not work as well.
- ✗ DO NOT stop using this drug without speaking to your doctor. There may be a higher risk of having broken bones in the spine after treatment ends, especially in people who have had bone thinning or broken bones.

Will this treatment interact with other medications or natural health products?

Although this medication is unlikely to interact with other medications, vitamins, foods, traditional medicines and natural health products, tell your health care team about all of your:

- prescription and over-the-counter (non-prescription) medications
- other drugs and substances, such as cannabis/marijuana (medical or recreational)
- natural health products such as vitamins, herbal teas, homeopathic medicines, and other supplements, or traditional medicines

Check with your health care team before starting or stopping any of them.



Talk to your health care team **BEFORE** taking or using these :

- Anti-inflammatory medications such as ibuprofen (Advil[®] or Motrin[®]), naproxen (Aleve[®]) or Aspirin[®].
- Over-the-counter products such as dimenhydrinate (Gravol[®])
- Natural health products such as St. John's Wort
- Traditional medicines
- Supplements such as vitamin C
- Grapefruit juice
- Alcoholic drinks
- Tobacco
- All other drugs or substances, such as marijuana or cannabis (medical or recreational)

How will this treatment affect sex, pregnancy and breastfeeding?

Talk to your health care team about:

- How this treatment may affect your sexual health
- How this treatment may affect your ability to have a baby, if this applies to you

This treatment may harm an unborn baby. Tell your health care team if you or your partner are pregnant, become pregnant during treatment, or are breastfeeding.

- If there is **any** chance of pregnancy happening, you and your partner together must use **2 effective forms of birth control** at the same time until at least **5 months** after your last treatment dose. Talk to your health care team about which birth control options are best for you.
- Do not breastfeed while on this treatment.

How to safely store and handle this medication

Keep in the refrigerator, but do not freeze. Keep out of sight and reach of children and pets.

Do not throw out any unused medications at home. Bring them to your pharmacy to be thrown away safely.

Before use, the medication vial (in its original container) can be brought to room temperature (usually takes 15-30 minutes). Once the drug is removed from the refrigerator, it must be kept at room temperature (up to 25°C) and used within 30 days. Do not warm the drug by other methods.

If you are receiving the injection at home, proper disposal of medication vials, needle covers, needles and syringes are very important. They should never be reused. These must always be disposed in a puncture-proof container. Ask your pharmacist for help on how to properly dispose of these items, including the filled container.

What are the side effects of this treatment?

The following table lists side effects that have been seen in people using denosumab with other chemotherapy drugs, so some of these effects may also be related to chemotherapy. The table is set up to list the most common side effects first and the least common last. It is unlikely that you will have all of the side effects listed and you may have some that are not listed.

Read over the side effect table so that you know what to look for and when to get help. Refer to this table if you experience any side effects while on denosumab.

Side effects and what to do	When to contact doctor?
Common Side Effects (25 to 49 out of 100 people)	
Nausea and vomiting (Generally mild) May occur in hours to days after your treatment. If you have nausea or vomiting: <ul style="list-style-type: none"> • Take anti-nausea medication(s) as prescribed to you by your doctor. • Drink clear liquids and have small meals. Get fresh air and rest. • Do not eat spicy, fried foods or foods with a strong smell. • Limit caffeine (e.g. coffee, tea) and alcohol. 	Contact your health care team if no improvement or if severe.

Side effects and what to do	When to contact doctor?
Common Side Effects (25 to 49 out of 100 people)	
<ul style="list-style-type: none"> Contact your health care team if the prescribed anti-nausea medications are not helping to control your nausea and vomiting. <p>Also see Nausea & Vomiting pamphlet for more information.</p>	
Anemia (low red blood cells) <ul style="list-style-type: none"> You may feel more tired or weak than normal and have pale skin. This may occur in days to weeks after you start or receive your medication. Rest often and eat well. Light exercise, such as walking may help. You may need medication or a blood transfusion. If it is very bad, your doctor may ask you to stop the medication that is causing the low red blood cells. 	Contact your health care team if no improvement or if severe.
Fatigue (tiredness) <ul style="list-style-type: none"> Be active and aim to get 30 minutes of moderate exercise (you are able to talk comfortably while exercising) on most days. Check with your health care team before starting any new exercise. Pace yourself, do not rush. Put off less important activities. Rest when you need to. Eat well and stay hydrated by drinking at least 6 to 8 glasses of water or other liquids every day (unless your doctor told you to drink more or less). Avoid driving or using machinery if you are feeling tired <p>See our Fatigue pamphlet for more information.</p>	Contact your health care team if no improvement or if severe.
Mild joint, muscle pain or cramps (common); headache (less common) <ul style="list-style-type: none"> Take your pain medication as prescribed by your doctor. You can take acetaminophen (Tylenol®) tablets as needed for mild aches and pains. Ask your doctor or pharmacist about the right dose for you. Talk to your doctor or pharmacist first before taking ibuprofen (Advil®, Motrin®), naproxen (Aleve®) or aspirin. These medication may increase bleeding risk. Rest often and try light exercise as it may help. 	Contact your health care team if no improvement or if severe.

Side effects and what to do	When to contact doctor?
Less Common Side Effects (10 to 24 out of 100 people)	
Low appetite <ul style="list-style-type: none"> You may not feel like eating or you may lose weight. Try to eat foods that you like and eat small meals throughout the day. You may need to take meal supplements to help keep your weight up. Talk to your health care team if you have a low appetite. See our Loss of appetite pamphlet for more information. 	Contact your health care team if no improvement or if severe.
Constipation <p>To help prevent constipation :</p> <ul style="list-style-type: none"> Drink more liquids and eat well. Drink at least 6 to 8 cups of liquids each day unless you have been told otherwise. Be Active. Exercise can help to keep you regular. Try to eat more fiber (e.g. fruits with skin, leafy greens and whole grains). If you take opioid pain medication, ask your health care team if eating more fibre is right for you. <p>To help treat constipation :</p> <ul style="list-style-type: none"> If you have not had a bowel movement in 2 to 3 days you may need to take a laxative. Ask your health care team what to do. <p>See the Constipation Pamphlet for more information.</p>	Contact your health care team if no improvement or if severe.
Cough; feeling short of breath <p>You may have cough and feel short of breath without any signs of infection, such as a sore throat or a stuffed nose.</p> <p>If you have chest pain, difficulty breathing or cough up blood, get emergency medical help right away.</p>	Contact your health care team if no improvement or if severe.
Diarrhea <p>May happen days to weeks after you get your treatment.</p> <p>If you have diarrhea :</p> <ul style="list-style-type: none"> Take anti-diarrhea medication if your health care team prescribed it. Do not eat foods or drinks with artificial sweetener (like chewing gum or 'diet' drinks), coffee and alcohol, until your diarrhea has stopped. Eat many small meals and snacks instead of 2 or 3 large meals. 	Contact your health care team if no improvement or if severe.

Side effects and what to do	When to contact doctor?
Less Common Side Effects (10 to 24 out of 100 people)	
<ul style="list-style-type: none"> • Drink at least 6 to 8 cups of liquids each day. Talk to your health care team if you can't drink 6-8 cups of liquids each day when you have diarrhea. You may need special liquids with salt and sugar, called Oral Rehydration Therapy. <p>See the Diarrhea pamphlet for more information.</p>	
<p>Salt imbalances (may be severe)</p> <p>It may cause muscle twitching, severe weakness or cramping, confusion and irregular heartbeat.</p> <p>Rarely, some patients with giant cell tumour of the bone or with growing bones have developed high calcium levels in the blood, weeks to months after denosumab treatment ends. Your doctor may monitor your calcium levels after you stop treatment.</p>	Get emergency medical help right away.
<p>Flu-like symptoms</p> <p>You may feel like you have the flu for around 2 days after your denosumab treatment. These flu-like symptoms may not be signs of an infection.</p> <p>What to look for?</p> <ul style="list-style-type: none"> • You may have chills, headache and muscle pain. • You may feel tired and have a poor appetite. • Symptoms may happen at any time after you receive your treatment and usually go away as your body gets used to the medication. <p>What to do?</p> <ul style="list-style-type: none"> • Check your temperature to see if you have a fever. You have a fever if your temperature taken in your mouth (oral temperature) is: <ul style="list-style-type: none"> ◦ 38.3°C (100.9°F) or higher at any time OR ◦ 38.0°C (100.4°F) or higher for at least one hour. • If you do have a fever, try to speak to your health care team. If you are unable to talk to them for advice, you MUST get emergency medical help right away. 	Contact your health care team if no improvement or if severe.

Other rare, but serious side effects are possible.

If you experience ANY of the following, speak to your cancer health care provider or get emergency medical help right away:

- Teeth, mouth or jaw pain and swelling, poor healing of mouth sores, unusual discharge from gums, loosening of teeth and the feeling of numbness or heaviness in the jaw.
- Severe pain in your back, hips, thighs, wrists or other bones that may be symptoms of broken bones
- Signs of a skin infection such as a swollen, red area on your skin that feels hot and tender, with or without fever
- Pain, swelling or hardening of a vein in your arm or leg
- Irregular heartbeat, fainting, swelling in your legs or belly
- Pain in your chest, belly or arm
- Sudden loss of vision, speech or the ability to use your arms or legs
- Signs of an allergy such as severe rash, swollen face, lip or tongue, chest or throat tightness
- Lower back pain, body swelling, passing little or no pee, yellow skin, eyes or recent weight gain
- Yellowish skin or eyes, unusually dark pee or pain on the right side of your belly

For more information on how to manage your symptoms ask your health care provider, or visit:

<https://www.cancercareontario.ca/symptoms>.

Notes

December 2025 Modified Other Names section

The information set out in the medication information sheets, regimen information sheets, and symptom management information (for patients) contained in the Drug Formulary (the "Formulary") is intended to be used by health professionals and patients for informational purposes only. The information is not intended to cover all possible uses, directions, precautions, drug interactions or side effects of a certain drug, nor should it be used to indicate that use of a particular drug is safe, appropriate or effective for a given condition.

A patient should always consult a healthcare provider if he/she has any questions regarding the information set out in the Formulary. The information in the Formulary is not intended to act as or replace medical advice and should not be relied upon in any such regard. All uses of the Formulary are subject to clinical judgment and actual prescribing patterns may not follow the information provided in the Formulary.