

The ROYAL MARSDEN

NHS Foundation Trust

Administration of Subcutaneous Denosumab

Pharmacy

Patient Information



NHS

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Introduction

This booklet gives you some simple instructions and information about injecting at home.

It is intended for you to keep as a useful reminder.

A nurse will have shown you how to give yourself a subcutaneous (under the skin) injection and offered a follow up phone consultation for when you first administer your own injection.

Please note:

The information in this guide is not intended to replace the advice of your medical team.

If you have any questions or are unsure about how to inject denosumab, your clinical team will be able to help.

Supply of denosumab for self-administration

Denosumab is supplied as a single use pre-filled syringe. You will have been advised by your clinical team or pharmacist as to how regularly you need to have a dose of denosumab.

You will either receive your supply of denosumab from the hospital or this will be couriered to your home address by the Homecare delivery company.

If you are collecting from the hospital:

In order to take the denosumab syringes home safely you must bring a plastic container to the hospital, for example Tupperware and a cool box or insulated container. The nursing team will discuss this with you in advance.

When storing or transporting your denosumab syringes you must not:

- Expose the syringes or their plastic container to direct sunlight.
- Leave the syringes in a parked car where the temperature may rise significantly for an extended period.
- Expose syringes to hot air blowers in cars.
- Place syringes in direct contact with heaters.
- Freeze the syringes or put on ice or next to frozen cool blocks.
- Supplies should be placed in the fridge as soon as possible.

Storage of denosumab at your home

Denosumab is normally stored in the fridge (between 2°C – 8°C) and do not freeze. Keep the pre-filled syringe in the outer carton to protect from light. Once the pre-filled syringe has been left to reach room temperature (up to 25°C), do not put it back in the refrigerator and it must be used within 30 days.

The pharmacy label will state the expiry date of your medicine – you should follow the pharmacy label for this information and not the pre-printed date on the syringe or the box.

Medicines should always be stored safely out of reach of children and pets.

Equipment required

You or your carer will be supplied with all the equipment required for administering denosumab safely at home.

If you require further supplies of the equipment, please contact the outpatient department.

From the pharmacy team, you will be provided with:

- **Pre-filled syringe(s) of 120mg Denosumab for your treatment.**

And the following equipment from the nursing team who trained you:

- **Sterile alcohol wipes**
- **Gauze swab**
- **Gloves and apron** (for use only if a carer is administering the injection(s))
- **Sharps disposal container**
- **Dressings.**

This bin should not be overfilled, the lid must be closed when the bin is full and you or your carer can either return the full container to the hospital outpatient unit, or most local councils also offer clinical waste collection. Please check with your local council on www.gov.uk/request-clinical-waste-collection

Safety and handling requirement

If your carer is administering the injection and obtains a needle stick injury (where the needle has pierced or scratched the skin), the area should be thoroughly washed with water, and they should contact the outpatient department for further advice.

Administering your subcutaneous denosumab injection

The process for preparing and administering your denosumab is described below. There is also a step-by-step guide on pages 7–9.

Before your injection

You should have received face-to-face training at the hospital before your first injection at home. If you received face-to-face training but are unsure of the process, then please contact the outpatient department. If outside of hospital hours, please contact The Royal Marsden Macmillan Hotline on 020 8915 6899.

Choose your area

- You should select an area where you will not be distracted.
- Choose a comfortable chair that has a table nearby.
- Ensure the work surface is clean and that there are no food products within reach.
- Only people who are helping you such as your carer should be in the room; this is to avoid distractions and inadvertent exposure.

Prepare your area

- Wash and dry your hands thoroughly and clean your preparation area. If your carer is administering the denosumab, they will need to wear the gloves and apron.
- Move to your chosen chair where you will sit and administer the injection.

- Collect all the equipment required (page 3) and place onto your cleaned area.

Preparing the denosumab injection

- Allow the denosumab pre-filled syringe to reach room temperature.
- Wash your hands with soap and water and dry. If you are the carer administering for someone else, put on the gloves and apron provided by the hospital after washing your hands.
- Open the packaging containing the syringe, having checked that the packaging is intact – if the packaging is damaged, discard this syringe and get a new one.
- Look at the solution in the syringe and check it is not cloudy or discoloured (do not use if it is).

Administering the denosumab injection

- Wash your hands or use alcohol gel if you have it.
- Open the packet of gauze swabs and remove the appropriate clothing to expose the area you will be using for the injection such as your tummy or thigh.
- Open the alcohol swab packet and take out the swab. Use the alcohol swab to clean the skin where you are going to inject yourself.
- Take the safety cap off the needle.
- Hold the syringe between the thumb and forefinger of your dominant hand as if holding a dart.
- Gently pinch the skin of the area chosen for injection up into a fold with your non-dominant hand. Check how much skin you can pinch – for some people this will be about an inch (2.5cm), for other it will be about 2 inches (5cm).
- Insert the needle into the skin at an angle of 90 degrees if you can grasp 2 inches (5cm) of skin, or 45 degrees if you can only grasp 1 inch (2.5cm) and then release the pinched skin.

- Slowly inject the drug by pushing on the end of the syringe plunger.
- Withdraw the needle and apply gentle pressure on the injection site. Use a gauze swab to clear away any leakage. Do not massage the area.
- Put the used needle and syringes into the sharps container.

Rotating your injection site

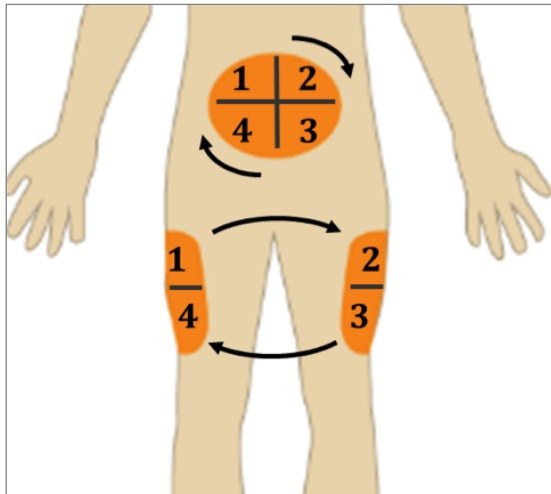
Injecting into the same area too many times can cause fatty lumps to appear on the surface of your skin, making injections more difficult and painful. This is known as lipohypertrophy.

To avoid this from developing, make sure you pick a different area of skin to put each injection into.

You can administer your denosumab injection into your abdomen (tummy) and your outer thigh.

Ideally you should aim to keep each new injection spot at least an inch away from your previous injection sites.

Below is a diagram showing how to rotate your injection site between the different areas of your body.



Step-by-step instructions for administering denosumab



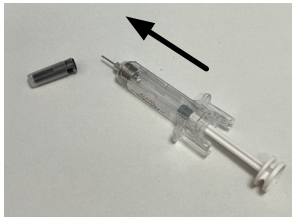
Step 1: Wash your hands or clean with alcohol gel. Open the gauze swabs and uncover the injection site chosen.



Step 2: Using a fresh sterile alcohol swab, clean the injection site. Allow the site to air dry.



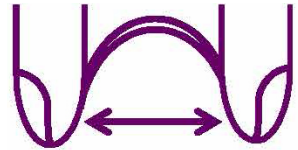
Step 3: Check the syringe is not cracked and the solution appears clear with no particles.



Step 4: Remove the clear needle cover from the needle, pulling away from your body.

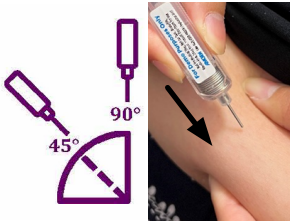


Step 5: Hold the syringe between your thumb and forefinger of your dominant hand, as if holding a dart.



Step 6: With your free hand, pinch the skin where you are going to inject – check how much skin you can pinch – is it nearer 1 inch (2.5cm) or 2 inch (5cm)?

[See page 8 for the next step](#)



Step 7: Insert the needle into the skin at 45° angle for 1 inch, or 90° for 2 inch, then release the pinched skin.



Step 8: If needed, use one hand to support the syringe and the other hand to push the plunger down slowly until all the drug has gone in. You may feel or hear a 'snap' which is the automatic needle guard.



Step 9: Hold it there for at least 10 seconds to ensure all the drug has been administered.



Step 10: Once you have waited at least 10 seconds, withdraw the needle from your skin and apply gentle pressure on the injection site.



Step 11: Use a gauze swab to clean away any leakage. Do not massage the area.



Step 12: Place the used syringe and needle into the special sharps container.

[See page 9 for the next step](#)



Step 13: Dispose of any remaining empty packets into the sharps container but keep unused gauze swabs for future use.



Step 14: Wash your hands thoroughly with soap and water.

Adverse effects of denosumab

The medical and nursing team looking after you will have provided you with information about your treatment. Please read this carefully as this will explain the common side effects and their management.

Below are two side effects which are important for you to be aware of; if you develop any symptoms below, it is important you let the hospital team know straight away.

Denosumab can cause a drop in the levels of calcium in your blood.

If you develop any of the following symptoms, please contact The Royal Marsden Macmillan Hotline immediately:

- Muscle spasms, twitching or cramps
- Tingling around your mouth (lips or tongue), or in your fingers and toes
- Feeling drowsy or confused.

Denosumab can also cause jaw problems (osteonecrosis)

Osteonecrosis of the jaw is when healthy bone tissue becomes damaged and dies. To reduce the risk of developing ONJ, you should maintain good oral hygiene and receive routine dental check-ups. If you are under dental treatment or will undergo dental surgery (eg tooth extractions), inform your medical team and tell your dentist that you are being treated with denosumab.

Contact the Royal Marsden Macmillan Hotline immediately if you develop any of these symptoms:

- Loose teeth
- Pain
- Swelling
- Redness of the gums.

Do's and Do not's

Do's

Do alternate the location in which you inject.

Do make sure you put your used syringes in the sharps bin each time you inject – never leave them lying around.

Do administer the injection at the same time each day.

Do contact the Royal Marsden (see page 14) if you are unsure on how to inject or would like more information.

Do not's

Do not put the syringe down anywhere or touch the needle with anything before injecting.

Do not inject into bruised or scarred/damaged skin.

Do not rub the skin after you have injected.

Do not share or let anyone else use your syringes.

Do not overfill the sharps bin – the lid must be closed when the bin is full. You or your carer must either return the container to the hospital at your next visit, or contact your local council to arrange collection.

Troubleshooting

What if...	You should...
What if you realise that your medication has been left out of the fridge?	Denosumab may be stored at room temperature (up to 25°C) for up to 30 days in the original container. Do not put it back in the refrigerator once removed and it must be used within 30 days.
What if the container for the drug is damaged such as a broken syringe?	Please use another one if you have been provided with more than one dose, and then contact the pharmacy homecare team within opening hours. If you do not have another dose, please also contact the team as above.
What if you lose the syringe?	
What if the contents of the syringe are cloudy?	
How do you manage a spill of denosumab?	<ul style="list-style-type: none">• Put on a pair of gloves• Put any broken glass or other sharps in the sharps bin• Use paper towel to mop up any fluid, then use wet paper towel to clean the area• Place the paper towel and gloves in a plastic bag and place in a normal rubbish bin• Wash your hands• Let the nursing team know within opening hours if you need a replacement syringe.

What if...	You should...
What if you experience side effects to the treatment?	Please contact The Royal Marsden Macmillan Hotline 020 8915 6899 (available 24 hours a day, 7 days a week).
What if you want to stop giving yourself injections?	If you want to stop giving yourself injections or there are reasons why this becomes unsafe, please contact your clinical nurse specialist.
What if you miss a dose of denosumab or forgot to administer it?	If you miss a dose for any reason, please contact your clinical nurse specialist for advice.

If you ran out of...	You should...
Denosumab pre-filled syringe	Contact pharmacy homecare team
Other equipment eg gauze swab, sharps disposal container	Contact the outpatient department

Contact details

Outpatient Department, Chelsea

Tel: 020 7808 2430 and ask for breast injection clinic nurse
(Monday to Friday, 9am – 5pm)

Outpatient Department, Sutton

Tel: 020 8661 3557 and ask for breast injection clinic nurse
(Monday to Friday, 9am – 5pm)

Royal Marsden Pharmacy Homecare team

Tel: 020 7811 8313
(Monday to Friday, 9am – 5pm)

Medical Day Unit, Chelsea

Tel: 020 7808 2320 or 020 7808 2325
(Monday to Friday, 9am – 6pm)

Medical Day Unit, Sutton

Tel: 020 8661 3174 or 020 8661 3084
(Monday to Friday, 9am – 6pm)

Alternatively, please call:

The Royal Marsden Macmillan Hotline: 020 8915 6899

You can ring the hotline 24 hours a day, 7 days a week.

Call us straight away if you are feeling unwell or are worried about the side effects of cancer treatments.

This service provides specialist advice and support to all Royal Marsden patients, as well as to their carers, and both hospital and community-based doctors and nurses caring for Royal Marsden patients.

References

This booklet is evidence based wherever the appropriate evidence is available, and represents an accumulation of expert opinion and professional interpretation.

Details of the references used in writing this booklet are available on request from:

The Royal Marsden Help Centre

Telephone: Chelsea 020 7811 8438 / 020 7808 2083

Sutton 020 8661 3759 / 3951

Email: patientcentre@rmh.nhs.uk

No conflicts of interest were declared in the production of this booklet.

Should you require information in an alternative format, please contact The Royal Marsden Help Centre.

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