



What you need to know

Intradermal monkeypox vaccination

Your clinic has advised that you are suitable to receive an intradermal smallpox vaccination (MVA) to help protect you from monkeypox. This is a slightly different way of using the MVA vaccine that has already been given to more than 30,000 people in the UK. It uses a much lower dose and means that we can vaccinate more people. It is expected to be just as effective as the normal method.



Intradermal vaccination has been endorsed by the UK's Joint Committee on Vaccination and Immunisation (JCVI) and is also now being used in the US.

What is intradermal vaccination?

Most vaccines are given by injection below the skin (subcutaneous) or into the muscle of the upper arm (intramuscular) – almost all health care workers can do this. Some vaccines can also be injected into the upper layer of the skin itself – this is known as intradermal vaccination.

This requires specially trained staff and is done with a much smaller volume (about one-fifth), and using a smaller needle and syringe.

The injection may take a few seconds longer and should produce a “bleb” (a small blister) that disappears within a minute. This method is commonly used for skin testing and vaccination against TB.

What if I don't want the intradermal vaccine?

If you do not want the vaccine in the new way, you will probably need to wait until new supplies become available.

As it is not known how long this might take, anyone at high risk is recommended to have the vaccine this way now.

The intradermal needle technique and the bleb or small blister on the skin



What you need about intradermal monkeypox vaccination

Why do we use intradermal vaccination?

When vaccines are injected into the skin, rather than the muscle, the important proteins in the vaccine are more accessible to the cells of your immune system. This means that your body can make a good response to the vaccine, even with a much smaller dose. This “dose-sparing” technique has been used commonly during outbreaks for other infections, such as yellow fever.

How do we know this method is as effective as the usual injection?

After the smallpox MVA vaccine was approved, a study* in 2015 compared different doses and methods of giving the vaccine. Roughly 300 people were randomised to either 0.5 mL subcutaneous or 0.1 mL intradermally. After the second dose the peak antibody levels were similar and overall response rates were around 95% in both groups.

On the basis of this evidence, JCVI have said that intradermal vaccination is considered equivalent to the standard route.

Is the intradermal injection safe?

The same study* also reported side effects. Mild fever and tiredness were similar in both groups. Moderate redness and swelling and itching at the injection site was more common with the intradermal route (22% vs 14%) but there was less local pain. Around a third of people who received the intradermal vaccination had a small dark mark at the injection site for some months.

Which clinics will give the vaccine this way?

The new dose is being offered first in clinics where staff are trained in this technique, especially the larger clinics. This is because all 5 doses need to be used in a single session. Some smaller clinics may continue to use a subcutaneous or intramuscular injection, but soon we hope most centres will be able to offer the vaccine this way.

Can everyone have the vaccine this way?

Almost everyone is able to have this new dose but there are 3 main exceptions:

- children
- people with weakened immune systems
- people with keloid scars

In these cases, using the original dose and method is recommended.

Most people living with HIV with undetectable viral load on ART can have the vaccine this way. You also need to have a CD4 count above 200.



Please report any suspected side effects directly via the Yellow Card Scheme at website: yellowcard.mhra.gov.uk, by downloading the Yellow Card app or by calling the Yellow Card scheme on 0800 731 6789 9am – 5pm.

Will you help us?

We would like to make sure that those having vaccination are as well informed as possible. To do this we would be very grateful if you could fill in a simple diary to document any side effects that you experience. Please go to the link below to complete the online survey, or scan the QR code:

<https://qrco.de/mpxids>



* www.sciencedirect.com/science/article/pii/S0264410X15008762