

# Fear of needles or needle phobia

It is common for people to display some angst towards needles. But most people appreciate the benefits of vaccination. Having a conversation with the person and encouraging them to say why they are having the vaccination helps strengthen their commitment.

Needle phobia, or trypanophobia, is the out-of-proportion fear of needles. Needle phobia in the context of vaccination is different as the overwhelming fear leads to vaccine avoidance. Incidence estimates of needle phobia are highly variable, both because it is not a well published area and the population being studied often avoid healthcare settings. One of the key findings from a 2018 meta-analysis, which included 119 research studies, found that an estimated one in six healthcare workers in long term care facilities and one in 13 healthcare workers in hospitals, avoided influenza vaccination due to fear of needles. This highlighted a significant cause for concern and should prompt healthcare professionals to think- what can we do about this?

## Pre-vaccination

Provide clear documentation explaining a person's needle fear/phobia in clinical notes.

This is helpful for healthcare professionals to know ahead of vaccination. For example, a patient with a known needle phobia might be better contacted by phone rather than through automated appointment so they can talk through concerns and discuss mitigation strategies prior, e.g., time of day, being able to lie down, bringing a support person.

## At the time of vaccination

- Encourage the person to bring a support person along to the appointment.
- Discuss fears with healthcare professional so appropriate mitigation strategies can be actioned.
- Include discussion of what is motivating them to overcome their fears and have the vaccination, e.g., to protect family, to be able to travel etc.

## Mitigation strategies could include:

- Having a support or second person there to distract them.
- Having the vaccination first thing in the morning to avoid worrying all day

- Being vaccinated lying down.
- Positioning or seated upright rather than lying down reduces pain compared with laying down supine. However, being supine may be a consideration for syncope or faint associated with vaccination or phobia.
- A reminder not to look at the needle or process of injection, offer something else to look at, e.g., YouTube or TikTok on phone.
- Practice breathing exercises, slow, deep breathing or blowing during vaccinations.
- Keeping needles out of view where possible.
- Tactile stimulation or anaesthetic cream, refer to the section on additional techniques.
- Assurance that if they do feel faint, staff will be able to manage this.

## Additional techniques which may be helpful for pain or preventing fainting

### 1. Muscle tension exercises

Muscle tension is a safe technique that can be used to counter feeling faint or dizzy when exposed to needles.

- i. Sit in a chair.
- ii. Tense or squeeze the muscles in their legs and stomach.
- iii. Squeeze for about 10-15 seconds until their face feels flushed or warm.
- iv. Release the tension for 20-30 seconds.
- v. Repeat steps ii, iii, and iv until the needle is over, or until the feeling of faintness passes.
- vi. Use a squeeze toy/ball or hold the hand of the support person, if desired.

2. Tactile stimulation – rubbing or stroking the skin near the injection site with moderate intensity before and during vaccination can reduce pain at the time of injection. This can be done by the support person.

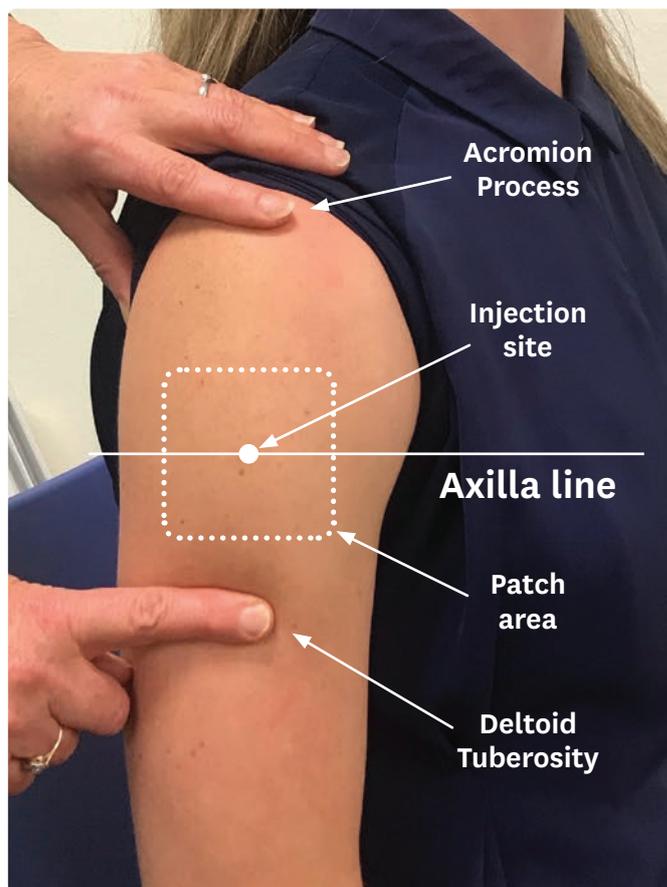
3. Topical anaesthetics, numbing creams or patches, evidence suggests these do not interfere with the immunogenicity of vaccine. These are available for use prior to vaccination by prescription or over the counter. While typically used in children it may be helpful for adult needle phobia.
  - For details on how to use anaesthetic cream, refer to the section below.
  - Offer a prescription for EMLA 5% anaesthetic cream. Note: this can be purchased without a prescription. The cost of Emla 5% anaesthetic cream, 5g tube with two dressings, is around \$18–\$25.
4. Vibrating devices have been used to block pain and provide distraction prior to and during needles in medical procedures. The ‘Buzzy4shots’ device is one locally available example.
5. Live/in person exposure methods prior to vaccination may be helpful.
  - McMurty et al. have published on exposure-based interventions being helpful for children aged 7 years and over and adults with high levels of needle fears. This requires advanced planning ahead of vaccination and professionals trained to do it.

### How to use anaesthetic cream to reduce vaccination pain

Creams or patches will dull or remove the pain of a needle entering the skin. These do need to be applied 30–60 minutes before the vaccination. Individuals can purchase numbing cream or patches from local pharmacies over the counter without prescription. They are also available by prescription to minimise costs.

The patch should be applied in a 5cm-by-5cm area on the upper arm, midline and in line with the armpit/axillar, preferably by the vaccinator (see opposite).

For a few people, allergic or local skin reactions can happen where numbing creams are applied, paleness or redness of the skin.



*Location of the injection site and patch area.*

### Careful pictorial depiction of vaccination

The images used to promote vaccination are important.

- The image of a healthcare professional standing next to a person with their sleeve rolled up portrays the act of vaccination, and in a more positive light than a photo with a large needle and a crying infant.
- Inclusion of images of such as whanau attending together as support and/or giving the ‘thumbs up’ after the event.
- Focus on the ‘after’ not the ‘before’.

### References

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