Needle Phobia in Children and Youth

Summary: Its normal for everyone to have some of needles, but when the fear of needles becomes excessive, it can cause problems by preventing a person from being able to get vaccinations, blood tests, or other necessary medical tests or treatments. Fortunately, there are many simple yet powerful strategies that can help one overcome the fear of needles.

What Is Needle Phobia?

Fear of needles is very common in children and adults. All children get needles through their regular immunizations. Those with medical illnesses or problems will need to get even more needles for injections or blood work. Most children and adults are able to overcome their fears, and it does not stop them from getting necessary immunizations, injections or blood work.

But if the fear is so great that it stops that person from getting needles, then it may be a condition known as ‘needle phobia’.

Definition of Needle Phobia

According to the DSM-IV (Diagnostic Statistical Manual of Mental Disorders), a tool used by professionals for diagnosis, needle phobia is a type of specific phobia. Its main features include:

- Marked and persistent fear that is excessive or unreasonable, cued by the presence or anticipation of needles.
- Exposure to needles almost invariably provokes immediate anxiety.
- Situations involving needles are avoided or are endured with intense anxiety or distress.
- The avoidance, fear and distress around needles interfere significantly with the person's life.

It can affect a person's medical health because it leads people to avoid getting proper health care. It can also cause significant social problems because immunizations or blood testing can be required for employment, getting health insurance, travel, education and marriage.

How Common is Needle Phobia?

Needle phobia is relatively common with an estimated incidence of 5-9% in adults and children (Craske, Antony, & Barlow, 1997; Kleinknecht, 1987; Mark, 1988).

What Causes Needle Phobia?

Needle phobia probably results from a complicated combination of genetics ("nature") and life events ("nurture"). (Hamilton, 1995; Willemsen, 2002).
Genetics. An unusually large percentage of those with needle phobia have relatives with needle phobia, which suggests a genetic basis for it. Indeed, from an evolutionary perspective, it is protective to be fearful of having your skin pierced, because that would make you more careful about avoiding cuts, bruises or injuries. During most of human history, even getting a simple scratch could be potentially fatal from infections, because back then we didn’t have antibiotics.

Life events. People with needle phobias generally describe having had a past negative experience with getting a needle (or a past negative experience that a close relative has had). Needle phobias can also develop through indirect experience (i.e. watching someone faint during an injection) and hearing negative information about needles.

What Happens During Needle Phobia?

Individuals with needle phobia usually feel intense fear and distress when faced with a needle situation, and will have an increased heart rate and blood pressure (Willemsen, 2002).

Following the initial increased heart rate and blood pressure, the body compensates with the opposite -- a vasovagal reflex which causes a lowering of the heart rate and blood pressure. In some individuals, this vasovagal reflex is so extreme that the person may faint (Willemsen, 2002).

Strategies to deal with vasovagal reflex include:

- Making sure that your child is lying down or has his/her legs elevated while the needle is given.
- After the needle, your child should stay lying or sitting and only stand up gradually and slowly. The child should not get up suddenly after having a needle!
- Applied muscle tension - this involves tensing muscles of the arms, torso and legs while relaxing the needle arm.

What To Do About Simple Needle Fears

Talk to your child about the needle phobia: Since there are many different strategies that can be used for needles, it makes it much easier if the child can help us figure out which strategies might be more helpful.

You might say, "What is it about a needle that makes it so scary?" "What stops you from being about to get a needle?"

Typical choices include:

- Some children are more afraid of the pain, so in those cases, a topical anesthetic (such as EMLA™ patch, or Ametop™) may be helpful.
- Other children are more afraid of the loss of control, so in those cases, it may be helpful to work together to give them a sense of control over the process. You might ask:
  - "Do you want me (or someone else) with you when you have the injection?"
  - "Do you want to lie down/stand up/sit down?"
  - "Do you want to know what is happening or would you rather not?"

Explain to your child why s/he needs a needle. Knowledge is power. How would you feel if you just went to the doctor, and s/he just stuck you with a needle without an explanation? Make sure that you explain to your child why s/he needs needle(s). For younger children, demonstrate the process of getting a needle using a doll or toy animal.

Eliminate painful needle pricks by numbing the skin. Many children are anxious about the pain from the needle prick. Ways to numb the skin and make this virtually painless include:

- Using an anesthetic patch (like the EMLA [eutectic mixture of local anesthetics]™ Patch) or cream to numb the skin. They can be used on healthy, unbroken skin prior to getting a needle, or having blood taken (with a needle). You can get these from most pharmacies; just follow the instructions in the package!
- Applying an icepack to the skin before the injection in order to numb the area.
**Distraction:** during the actual procedure, giving the child something to do (e.g. playing a handheld video game, or using noisy toys) can reduce the distress by taking the child's attention away from the needle and onto something else. Some people report that the noisier the toy the better!

**Be a model for calmness for your child.** Children will model what their parents show, so if you can model calmness, it will help. If you have problems getting upset and tense with your child's needle, then find a way to deal with your own fears. Many parents of children with needle phobias may themselves have needle phobias. If you have unresolved issues with needle phobia, then consider seeing a professional such as a psychologist to learn ways to overcome your fear.

**Positive reinforcement:** when your child is successful in getting a needle, making sure you give verbal praise such as compliments. You might say, "Good job! I knew you could do it!" Even if your child is unable to get a needle, but is able to do one of the smaller steps (e.g. going to the doctor's), praise those little steps as well. In some cases, consider offering a reward. Write down what behaviours you want your child to be able to do, and write down reward, e.g. a treat, allowance money or other tangible reward.

**Avoid negative reinforcement:** Many adults with needle phobias talk about how they received negative reinforcement such as teasing or insults for their needle fears when younger. Thus, with your child, make sure that you focus on positives rather than negatives!

**Making positive coping statements:** a child with needle phobia may be having anxious thoughts such as "It's going to hurt" / "I can't cope with this!"

Helping the child come up with more positive coping thoughts may be helpful. "It's not going to hurt that much" / "I can cope with this!"

If You Suspect Needle Phobia

If your child's needle fears are not improving on their own, and if the fears are causing problems, it is best to seek professional help.

See your child's doctor, and also inform other health professionals such as nurses that may be involved in giving needles.

What Professional Treatments Are Available?

Doctors and nurses will be able to help with basic strategies. If those are not enough, then your child's doctor might recommend seeing a professional such as a psychologist. Some of the standard strategies used by psychologists include the following:

**Exposure / Desensitization / Rehearsal:** This involves practicing the whole process of getting a needle in a step-by-step approach.

The theory behind progressive exposure is that if your child is too scared to go to the doctor's and get a needle, then it's because that's too big a step for the child to handle. The solution is to break down the whole process into a series of smaller steps, and then go through one step at a time with the child. One such hierarchy might involve:

- With your child, get a children's book or video about needles or going to the doctor's office. Many pediatric hospitals also have websites with such information. Contact your local children's hospital for more information.
- With younger children, get a doctor's play set, and practice "playing doctor" or "playing nurse" and give each other needles. Have your child pretend to give you a needle, and give him/herself a needle. Or you might consider getting a doll so your child can give the doll a (pretend) needle.
- With older children such as teenagers, mental health professionals (such as psychologists) may also use real needles in treating needle phobia, with steps such as:
  - Looking at a needle
  - Holding the needle
  - Putting a needle next to one's skin, but without doing the injection -- note that this is not recommended for most children and youth and is only done with close supervision by a professional.
- Go to the doctor’s office and just wait in the waiting room
- Go to the doctor’s office, wait in the waiting room, and see the doctor, but without getting any needle.
- Go to the doctor’s office, wait in the waiting room, see the doctor, and get the needle

**Relaxation training:** learning and practicing strategies that help keep one relaxed. This includes:

a) **Imagery:** this is all about closing your eyes and imagining yourself in a soothing place, and/or being successful at getting a needle.

b) **Breathing exercises / Relaxation.** When children get nervous, they may start breathing faster. You can help your child relax by encouraging your child to breathe slowly and deeply.

c) **Hypnosis:** working with a professional trained in hypnosis (like a family doctor or psychologist), you learn how to reach a state of deep relaxation (i.e. a hypnotic state).

**When to get help**

It is normal for many children to dislike needles. But if it's to the point where your child is refusing and/or too overwhelmed to have a needle, try the following:

- **Speak to your child’s doctor**
- **Speak to your local pediatric hospital:** Most children's hospitals have books, videos or other resources to help teach the importance of needles to children.
- **Speak to a psychologist**

**References**


**About this Document**

Written by the eMentalHealth Team and Partners.

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