

Pain management children

Introduction

Your child is or will be admitted to the Paediatric Ward or the Paediatric daycare. This leaflet has been written for parents/caregivers to provide them with more information about pain and pain management in children. It explains:

- what pain is;
- how pain can be caused;
- the different types of pain a child can feel;
- what pain relief consists of before, during and after surgery.

We also explain various forms of pain relief. It is important to realize that every child experiences pain in a different, unique manner. The cause of the pain, previous experiences and also whether or not the child has support and confidence all play a role here.

What is pain?

Pain is "what the child feels and it exists when it is expressed in verbal and/or non-verbal form by the child or if the parent and/or paediatric nurse assumes that the child is in pain based on their specific expertise." (definition used by the Netherlands Association of Nurses and Caregivers, department of paediatric nursing, www.kinderverpleegkundigen.venvn.nl)

The function and causes of pain

Pain also has an early-warning function. It is a sign that something is wrong in the body. Pain warns when, for example, someone puts his/her hand under the hot tap and withdraws in a reflex, or in the case of (threatening) disease. In hospital, pain may be caused by different causes, for example, by surgery or a procedure such as the insertion of an IV line.

Understanding pain and pain perception

Pain is not always easy to understand. For young children, in particular, it is sometimes difficult for them to indicate that they are in

pain and where that pain is. How a child reacts to pain is not solely dependent on the causes of pain (e.g. through surgery or a treatment). Other aspects, such as the developmental phase of the child and the psychological and social conditions, may play a role in pain perception.

Because every child experiences pain differently, we cannot provide explanations and instructions for your child's specific situation. We do give some general guidelines to help you get started and encourage you to discuss any questions you may have with the doctor treating your child.

Recognizing pain in your child

It is important that you can recognize pain in your child and know what to do to ease the pain. As parents, you know best how to comfort your child. Below, we describe per age category a number of signals that you can pick up from your child.

A baby in pain, for example, often sleeps restlessly and superficially or lies in a cramped position. The skin colour may change from pink to pale. Often babies are prickled by touch and then they moan. Premature babies sometimes express their pain by lying still.

Toddlers and preschoolers often show that they are in pain by crying or making pained faces. They cannot yet distinguish between more severe and less severe pain. Sometimes they cannot locate the pain specifically; by rubbing/pushing on the spot where it hurts, they can indicate this. They often indicate that they have abdominal pain while the cause is located elsewhere in the body. Pain can also affect the mood and/or behaviour of the child. Thus, your child may act sad or irritable. Over the age of four, children start to specify how much pain they have. However, with their limited language development, it is still very difficult.

School children, adolescents and young people understand better why they are in pain. At this age, fear, guilt and shame play an important role. This may be a reason why the child is less likely to express his/her pain. As the child gets older, personality and environmental factors play an increasingly important role. Because of this, perception of pain becomes increasingly more complicated.

Pain Measurement

In hospital, for newborn babies up to 1 month, we use the Neo Comfort scale. This is a pain measurement instrument based on behavioural observations. In hospital, for children up to about 4 years of age, we use the FLACC system. This is also a pain measurement instrument. FLACC stands for Faces, Legs, Activity, Crying and Consolability. During an observation, the nurse will look at the different items with your child and determine a score. The FLACC is also useful for children with intellectual disabilities.



For children of 4 -7 years of age, we use the Smiley Scale, also called Visual Analogue Scale (VAS): Here, we show the children six faces of different colours and facial expressions. The children are asked, via an adjustable slider, to indicate the face that best matches how they feel at that moment. On the back, the nurse can read a number between 0 and 10 which gives an indication of how much pain your child feels.



For older children (from 7 years of age), we use the Numeric Rating Scale (NRS): This consists of a measuring stick with the numbers 0 to 10. Here, 0 means no pain and 10 means severe pain. Sometimes, an older child also wants to use the smiley scale. That is fine, what matters is that the child can express the pain experience.

Pain relief

In Amstelland Hospital, we work with a pain management protocol developed specifically for children. Its goal is optimal pain management for each child. Pain can hinder the healing process, cause complications and

s associated with anxiety and stress. It is therefore important that pain is adequately assessed, prevented and combated.

Medication

Which pain relief is given to your child will depend on the age of the child, the procedure and/or condition. Sometimes, a combination of different drugs is given. It could be a liquid, a pill or a suppository. Pain medication can also be given through the IV drip. To reduce the pain of inserting the IV line, a plaster with anaesthetic cream is placed on the back of the hand.

If your child already uses medication at home, please bring this with you when being admitted. For a scheduled procedure, medication has already been discussed at the outpatient clinic with the anaesthetist.

Pain relief without medication

Sometimes, no medication is given for pain relief but, for example, distraction or breathing techniques are used. You, as a parent, can also contribute to reducing your child's pain. It is important (if possible) that your child is well prepared for the hospital admittance or surgery. In order to do this, you can attend the preparatory afternoon at the paediatric daycare together with your child. You can repeat this at home a number of times, using pictures (for example, 'Nijntje goes to the hospital').

It is not wise to lie about what's going to happen. This causes distrust in a child which can cause an increase in the pain that the child feels. Tell, for instance, honestly that a prick does hurt but that an anaesthetic patch can reduce the pain.

If your child is not always thinking about the pain, he/she usually feels it less. It is therefore nice if your child has some distractions. For example, this can be done by:

- bringing his/her own toys / favourite cuddly toy;
- having visitors;
- reading to your child;
- letting your child watch TV or a film;
- letting your child play;
- letting your child listen to music;
- going with your child to the playroom.

You can also prepare your teenager by talking to him/her about the upcoming surgery.

On the website are 2 short films (in Dutch) which help to prepare your child for surgery: <https://www.ziekenhuisamstelland.nl/nl/kinderen/>

Choose your child's age, go to "Operatie" and after that to "Voor de operatie".

Pain after the operation

Pain management also includes the prevention of pain, which is why your child is given pain medication before and during surgery. This way, your child has less pain after surgery. After the operation, the child receives pain relief at regular intervals, according to the prescription of the doctor. By administering painkillers at fixed times, the pain can be minimized as much as possible.

It is important that your child takes the pain medication, even if your child feels that the pain at that moment is not so severe. If the pain measurement reveals that your child is still experiencing unacceptable levels of pain, then there will be a consultation with the anaesthetist or paediatrician to adjust the pain relief.

When your child goes home, it is important to still give the pain medication as prescribed, at fixed times, for the first few days. You can,

after that, administer the pain relief yourself, guided by your child's behaviour and as he/she indicates. In the case of a scheduled surgery, the pain relief is prescribed by the anaesthetist beforehand. In that case, you can already have the painkillers at home, available at pharmacies and drug stores.

Dosage

Use paracetamol syrup with a concentration of 24 mg/ml. If your child does not want to take it, you can use suppositories (available in 60mg, 120mg, 240mg). Sometimes you will have to administer two suppositories. Older children can sometimes take tablets. The dosage in this folder is higher than in the information leaflet. This is because, after surgery, the need for pain relief is great. Make sure you provide the correct dose for your child's weight, according to the table below. You may give your child pain relief for up to 5 days.

4x per day means that there are 6 hours between each dose.

3 times per day means that there are 8 hours between each dose.

Paracetamol for the first three days after the operation:

Weight of child	Syrup (liquid to drink)	Suppositories (rectal)	Tablet (oral)
8 kg	4x per day 7,5 ml	3x per day 240 mg	
9 kg	4x per day 8,5 ml	3x per day 240 mg	
10-11 kg	4x per day 9 ml	3x per day 240 mg	
11-12 kg	4x per day 10 ml	3x per day 240 mg	
12-14 kg	4x per day 11 ml	3x per day 360 mg	
14-16 kg	4x per day 13 ml	3x per day 360 mg	
16-20 kg	4x per day 15 ml	3x per day 480 mg	
20-25 kg	4x per day 19 ml	3x per day 500 mg	Max 4x per day 500 mg
25-30 kg	4x per day 23 ml	3x per day 740 mg	4x per day 500 mg
30-40 kg	4x per day 28 ml	3x per day 740 mg	4x per day 500 mg
> 40 kg	4x per day 31 ml	3x per day 1000 mg	3x per day 1000 mg

Diclofenac/Ibuprofen for the first three days after the operation

For the first days, giving only paracetamol may provide insufficient pain relief. This will certainly be the case after a tonsillectomy. In that case, you may give diclofenac or ibuprofen along with paracetamol, according to the prescription or the doctor's advice.

Diclofenac (Voltaren):

Ibuprofen:

Weight	Suppositories (rectal) or tablet	
10-24 kg	2-3x per day	12,5 mg
24-37 kg	3x per day	25 mg
37-50 kg	3x per day	37,5 mg
>50 kg	3x per day	50 mg

Weight	Suppositories (rectal) or tablet	
10-12 kg	3x per day	50 mg
12-14 kg	3x per day	60 mg
14-16 kg	3x per day	70 mg
16-20 kg	3x per day	80 mg
20-26 kg	3x per day	100 mg
26-30 kg	3x per day	130 mg
30-40 kg	3x per day	150 mg
>40kg	3x per day	200 mg

If your child has less pain after surgery, always first reduce the diclofenac or ibuprofen and give only paracetamol.

Paracetamol if, after three days, pain relief is still needed

Weight of child	Syrup (liquid to drink)	Suppositories (rectal)	Tablet (oral)
10-11 kg	3x per day 8 ml	3x per day 120 mg	
11-12 kg	3x per day 9 ml	3x per day 120 mg	
12-14 kg	3x per day 10 ml	3x per day 240 mg	
14-16 kg	3x per day 12 ml	3x per day 240 mg	
16-20 kg	3x per day 13 ml	3x per day 240 mg	
20-25 kg	3x per day 17 ml	3x per day 360 mg	3x per day 500 mg
25-30 kg	3x per day 21 ml	3x per day 500 mg	3x per day 500 mg
30-40 kg	3x per day 21 ml	3x per day 500 mg	3x per day 500 mg
> 40 kg	3x per day 21 ml	3x per day 500 mg	3x per day 500 mg

In conclusion

We hope that the information in this brochure has given you more clarity about the possibilities to treat, support and look after your child in case of pain. If, after reading this leaflet, you have any questions, you can always contact the nurse who cares for your child. If, when you get home, your child continues to be in pain, please call the Paediatric Ward, phone 020-755 6668.

If you have questions about pain relief after surgery, you can always contact the anaesthetists at Amstelland Hospital by calling 020-755 7000.