

Procedural sedation Information sheet

Information for parents and/or caregivers

Welcome to the Southern Adelaide Health Network. This information sheet aims to answer any questions you may have about your child having procedural sedation.

What is procedural sedation?

Sedation is when a type of medicine called a sedative, is given to children to help them feel calm or sleepy. This medicine can be breathed in as a gas, taken as a drink, given by injection into a muscle or vein, or squirted up their nose.

Reasons for having sedation

Your child may become distressed or have pain when having certain tests or treatment. Procedural sedation (sedation for procedures) is given to reduce your child's anxiety and will help them to remain still.

Sedation allows procedures to be done with as little pain or distress to your child as possible. Some sedatives will cause your child to forget the procedure (or part of it) – this is normal.

Types of sedation medicine

The following medicines are the most common sedatives used in children. Not all sedation medicines suit all children. The nurse or doctor will assess your child and tell you which one of these medicines best suits your child.

Nitrous oxide gas

Nitrous oxide has been used in dental clinics, during childbirth and in hospital emergency departments for many years. It is sometimes referred to as laughing gas and is safe for use in children.

- Nitrous oxide makes your child sleepy and provides pain relief.
- It is a gas that your child breathes in through a mask or a mouthpiece.
- Different flavours can be put on the mask to hide the taste of the gas.
- The gas works quickly and wears off quickly.
- Your child may not remember the procedure.

Midazolam

Midazolam is a benzodiazepine medication. Benzodiazepine medications have calming effects. With the development of newer sedatives, midazolam is less commonly used for emergency procedures.

- Midazolam will make your child sleepy but does not provide pain relief.
- It can be given as a drink, a squirt up the nose or directly into a vein through a drip (IV).
- Sometimes your child may need pain relief as well.
- Some children may become hyperactive instead of relaxed after they have the midazolam. If this happens, a different drug may be needed or the procedure will need to be rescheduled.
- Your child may not remember the procedure.

Chloral hydrate

Chloral hydrate is a sedative medication that makes children drowsy, and it is useful where a child needs to be very still for 20–60 minutes.

- Chloral hydrate is given as a drink.
- It can take from 10 to 30 minutes for your child to become drowsy.
- Before the appointment try to keep your child awake as much as possible, as this helps the drug to be more effective.
- The effects wear off quickly.

Before the procedure

As the parent or caregiver, you will need to give your consent before your child is given sedation. You need to understand the reasons for sedation and the risks involved. Make sure you talk about any concerns and ask any questions about the sedation.

Also allow your child to ask questions and discuss their concerns. For younger children in particular, it can be a little frightening having a mask placed on their face. It can be helpful to let your child see and touch the mask, and practice breathing with it before the gas is turned on.

Your doctor or nurse will ask questions about your child's health and medical history. Make sure you tell your doctor or nurse about any allergies or previous problems your child or family members have had with anaesthetics or sedation. Some children may have an allergy to the medicine used for sedation, and this allergy may need to be treated with a separate medicine.

Pain relief before sedation

If your child needs sedation by IV (intravenous) injection, staff may put a numbing cream on their skin to reduce the pain of the injection. Your child may also be given pain relief medicine before, during or after the procedure.

Fasting before sedation

Medicine for sedation can make children feel sick or vomit, so your child may have to fast (stop eating or drinking) for a few hours before the sedation. This will decrease the chance of vomiting when under sedation. Staff will advise you how long your child needs to fast.

During the procedure

In most cases you will be able to stay with your child during the procedure, and provide comfort and support. Your child will be awake throughout the procedure. They may remain quiet, or they may continue to talk and interact with others.

Staff will carefully check your child's breathing during the procedure, and monitor their oxygen levels using an oxygen measuring probe on a finger or toe.

Sometimes complications can happen. For example, sometimes children become too sleepy and need extra oxygen through a mask or breathing tube. Occasionally, the sedation may not work properly and extra medicine or treatment needs to be given.

Children may feel the need to vomit when they have been given sedation, especially nitrous oxide. Your child will be monitored closely during the procedure and medicines can be given to reduce nausea. Very rarely, children may breathe vomit into their lungs while they are sedated (aspiration). Staff will treat your child if this happens.

After the procedure

Your child may have some simple machines attached to monitor their heart rate (pulse) and oxygen saturation levels. They will be watched by trained staff after the procedure, and monitored until they are fully awake. Some children may feel drowsy, confused, grizzly or clumsy after the procedure – this is normal and will wear off after around 24 hours.

It is important that your child stays in their bed until a doctor or nurse says it's safe move about. Your child should also wait until a doctor or nurse advises that it's OK to eat and drink.

Leaving hospital

If your child is not staying in hospital (e.g. you are in an emergency department or at an outpatient clinic), it is very important that you do not leave until staff tell you it is safe to do so. Expect to wait at least an hour after your child wakes.

It is ideal if two people are available to take your child home. That way the driver can concentrate on driving while someone else is watching the child on the way home.

Make sure you ask staff any questions you have about your child and how to care for them before you leave hospital.

If your child falls asleep in the car going home from hospital, watch or listen to their breathing to make sure that they do not have any breathing problems. Do not leave your child alone at any time in a car seat or in the car.

If you are concerned about your child's breathing, return to the hospital or call an ambulance. An ambulance is usually safer and faster than driving yourself.

Care at home

You need to be extra careful in caring for and supervising your child in the 24 hours after they have been given sedation medicine.

Children may go to sleep again after getting home from the hospital, even if it is before their bedtime. Let them sleep – this is nothing to be concerned about as it is usually due to the stress and excitement of being in a hospital, as well as after effects of the sedation medication.

Check on your child during the first night after getting home. Wake them gently if their sleeping seems unusually heavy or strange. **If you cannot wake them or something seems very wrong in their appearance or breathing, call an ambulance and return to the hospital immediately.**

Eating and drinking

Sometimes children may feel sick or vomit if they eat a big meal too soon after sedation. Give your child clear liquids such as diluted fruit juice, icy poles or jelly, and make their first meal small and light (e.g. a sandwich, or bread and soup). Avoid heavy, fatty meals (e.g. McDonald's) for the next few hours after getting home.

Some children may feel unwell or may vomit once or twice after having sedation.

Activities

Supervise all playing and bathing for the next eight hours after getting home. Do not let your child swim or use play equipment (bikes, monkey bars etc.) that might cause an accident for the next 24 hours.

When to see a doctor

Call your treating doctor if:

- your child vomits more than twice
- they have strange or unusual behaviour
- you have any questions.

Call for an ambulance immediately if:

- your child cannot sit or walk
- they are having breathing problems
- you cannot wake your child
- something seems very wrong.

Key points to remember

- Sedation is commonly used in children for procedures
- You need to give consent before your child has sedation.
- Make sure you understand the reasons for and the risks of sedation.
- Ask any questions you may have before, during and after the procedure.
- Your child needs careful supervision for 24 hours after the sedation.

Adapted from

RCH Melbourne fact sheet- procedural sedation

Up to date: Procedural sedation in children outside of the operating room

Kids health information: sedation for procedures: Sydney's children's hospital network

Procedural sedation for children : Womens & childrens health network

For more information

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