



Great Ormond Street Hospital for Children NHS Foundation Trust

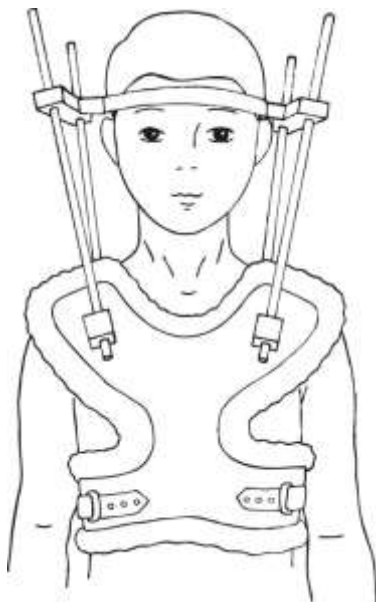
Halo vest system: information for families

The halo vest system protects the cervical spine (the bones in the neck) from any damaging movement of the bones that allows the bones to heal following injury or surgery. This information sheet from Great Ormond Street Hospital (GOSH) explains the halo vest system and how to care for your child when you return home.

The equipment used for halo vest system is made up of two parts:

- A ring around the head, which is attached to the skull with pins
- A special vest with a sheepskin lining which is attached to the halo ring with rods

The halo vest system equipment is made from material that is strong and light so it is easy for your child to move around.



As the equipment is not made from metal, your child can have a magnetic resonance imaging (MRI) scan while they are wearing it, if required, to view the spine.

Are there any alternatives to having halo vest system?

This depends on the extent of your child's injury or operation. Where possible, if your child's neck can be held in place by a neck collar, this is what the doctors will suggest. However, there are some circumstances in which halo vest system offers the best results.

Are there any risks?

Bumps and knocks to the halo can be painful, and traumatic and boisterous activity should be avoided.

The operation to fit the halo vest system equipment

Your child will have the halo vest system equipment fitted while under general anaesthetic.

What does the operation involve?

The halo part of the equipment will be fitted to your child's skull using pins that are placed through the skin directly into the skull. The doctor will then put your child into the special vest and connect up the rods to form the complete halo vest system equipment.

What happens before the operation?

You will have received information in your child's admission letter about how to prepare your child for the operation. Please bring shirts/ jumpers that button up the front, as putting clothes on over the head is difficult once the halo vest system is in place. Occasionally the sheepskin vest causes itchiness, so please also bring a cotton vest, which we can place next to the skin and underneath the sheepskin if necessary. The nurse and play specialist will help prepare your child for the halo system and inform you how best you too can help.

If your child is being admitted on the same day as the halo fitting, it is important that your child does not eat or drink anything for a few hours before the operation. This is called 'fasting' or 'nil by mouth'. Fasting reduces the risk of stomach contents entering the lungs during and after the procedure. You will be informed the night before the procedure of the time that your child should be 'nil by mouth' – in other words, have nothing to eat or drink before the anaesthetic.

It is equally important to keep giving your child food and drink until those times to ensure they remain well-hydrated and get adequate nutrition. This may involve waking your child in the night to give them a drink which we recommend.

Before the operation, the doctor will need to take various measurements to ensure that the equipment fits your child correctly.

The doctors will explain the operation in more detail, discuss any worries you may have and ask you to give your permission for the operation by signing a consent form. Another doctor will visit you to explain about the anaesthetic. If your child has any medical problems, particularly allergies, please tell the doctors about these. Please also bring in any medicines your child is currently taking.

What happens afterwards?

Your child will come back to the ward to recover. A halo vest system can be a little frightening to wake up in so your child will need your reassurance. The nurses and play specialist will be there to offer reassurance and guidance to you and your child.

Your child will have been given some pain relief at the end of the operation, so should not be in pain when they wake up. The nurses will regularly make sure that your child has enough pain relief to keep them comfortable. After a few days, paracetamol or ibuprofen-based medications should be enough to deal with any pain or discomfort.

Learning to look after the halo vest system equipment

Once your child has recovered from the operation, the ward staff will show you how to care for the equipment.

There is a black plastic spanner attached to the front of the vest. This should not be removed at any time as it may be needed in an emergency to remove the halo vest system equipment.

On the day after the operation, a physiotherapist will visit your child. They will help your child to get used to the halo system. There are special ways of moving about, getting up or sitting down while wearing halo vest system, and the physiotherapist will show your child how to do these things.

At no time must you help your child move by pulling on the metal rods that join the halo ring and the jacket, as this will cause tension on the skull pins.

It may take you and your child some time to get used to halo vest system. If you have any questions, either while your child is at the hospital or after they go home, please contact a member of the ward staff.

You should call the hospital if:

- The pin sites ooze or bleed
- The pins become loose
- The equipment becomes broken or loose

Diet and eating

At first, the sensation of swallowing may feel different as your child will be unable to move their neck and it may take a little time for your child to adjust.

Vest care

The sheepskin vest should be kept dry at all times. If it gets wet, dry it with a hairdryer on a cool setting. You should never try to remove the sheepskin from inside the jacket. If the lining gets dirty, please contact the hospital, as we may need to change it.

Skin care

Skin care underneath the sheepskin is difficult. Your child will not be able to have a bath or a shower, but areas that you can reach should be washed and dried every day. Use water only – do not use any soap, oil or powder.

If you wish, you can bring a cotton vest to be fitted underneath the sheepskin (it may get damaged when the vest is removed so it is best not to use an expensive one or a favourite one). A cotton vest may be particularly helpful if your child is likely to be wearing the halo vest system equipment during hot weather.

Hair washing

This can also be difficult. The easiest way to do it is with a shower attachment fitted to your bath taps. It is important not to get the sheepskin wet so you should wrap a towel around your child. If possible, try to lie your child flat on their back with the head over the edge of the bath, rather than asking them to lean forwards over the bath.

Try not to bump the pins as this can be painful and may cause them to become loose.

Pin site care

If the pin sites are oozing or painful or the pins are loose, please contact your GP or telephone us on the ward.

We do not encourage routine cleaning of pin sites, just gentle showering when hair washing. If the pin sites look red and inflamed please contact your GP or the ward for advice.

Clothing

Big, baggy clothes with buttons or zips are easier to wear over the traction equipment than tight fitting garments. It may be best for your child to wear clothes a size or two bigger than normal.

Sleeping

Your child will take time to adjust to sleeping with the traction equipment on. Using one or two pillows for support should make them more comfortable. When your child needs to get out of bed, they should roll onto one side and then use their arms to push upwards.

Travelling and moving around

Your child may be unsteady and they may take time to adapt to the halo vest system equipment. While your child is in hospital, the physiotherapist will help them to adjust. It may be easier for your child to bend at the knees rather than the waist when they need to pick something up.

Your child should continue to wear a seatbelt in the car. Stairs and street kerbs are better negotiated sideways.

Reading and writing

Your child may find it difficult to read or work at a desk. Tilting the desktop may help.

School

Your child should be able to attend school while wearing the halo vest system equipment, but will not be able to take part in PE, games, swimming or any other 'rough and tumble' activities. If you are worried about how your child is going to cope back at school, please speak to a member of ward staff.

Bullying or unwanted attention

If your child is receiving unwanted attention, please contact the ward play specialist as they may be able to suggest some strategies for dealing with this. Honest explanations when your child returns to school wearing the equipment can

ease any fears felt by other children, and answer their questions.

Removal of the halo vest system equipment

Your child will need to come back into the hospital in order to have the equipment taken off. They will have a scan and x-rays to check that everything is satisfactory before it is removed under a short general anaesthetic.

Afterwards, your child may need to wear a neck collar for a few weeks. Their neck may feel weak because the muscles have not been used as normal while the halo vest system equipment was fitted. The physiotherapist will see you before you go home to give you some advice about this.

If you have any questions or concerns, please contact Koala Ward on 020 7829 8826.