



Short-term parenteral nutrition: information for families

Parenteral nutrition is used when the gut is unable to absorb enough nutrition to enable your child to grow and develop normally. A liquid solution that contains nutrients (vitamins, minerals, carbohydrates, proteins and fats) needed for growth and development is given directly into a vein. This information sheet explains about parenteral nutrition, how it is given and what to expect when your child is having parenteral nutrition at Great Ormond Street Hospital (GOSH).

Parenteral nutrition is only suggested when other methods, such as nasogastric or gastrostomy feeding, have been tried and failed to maintain enough nutrition for your child to grow and develop.

Why does my child need it?

In children, doctors might suggest short-term parenteral nutrition after major intestinal surgery as it gives the gut time to rest and heal.

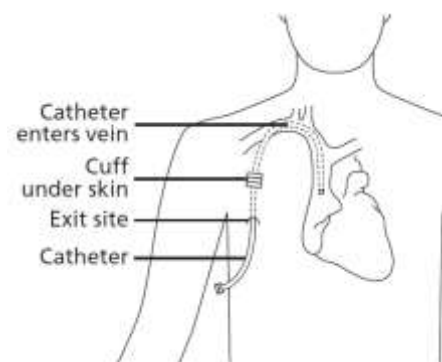
They might also suggest it if your child is having chemotherapy, and has diarrhoea, or during the bone marrow transplant (BMT) process or has had a serious accident or burns.

Newborn babies, especially those born early (premature), might need parenteral nutrition while their gut continues to develop or if they have a condition called necrotising enterocolitis (NEC).

Parenteral nutrition is usually only suggested if your child is likely to need it for at least two weeks; your doctor will explain why your child needs it.

How does parenteral nutrition work?

Parenteral nutrition delivers a solution of nutrients directly into a vein, either continuously or overnight, preferably through a central venous catheter. The catheter is tunneled under the skin and into a vein leading to the heart. The other end comes out through a small incision in your child's chest (exit site). It is inserted and removed under general anaesthetic.



The solution is produced in our pharmacy and is made specifically for each child, according to their weight and nutritional needs.

As the solution is delivered directly into your child's bloodstream, it is very important that it is sterile (free from any germs) so the nurses follow

precautions as advised by our Infection Prevention and Control team when connecting and disconnecting. Once the bag is connected, the same bag cannot be disconnected and re-connected, it must be discarded.

An intravenous (IV) pump delivers the solution to your child's vein. It can run on batteries so if your child is feeling well enough, it is fine to move about or walk around the hospital. Remember to carry your safety pack with you each time your child leaves the ward.

The nutrition support team

The parenteral nutrition is prescribed on a daily basis during the week and will be tailored to each child's individual requirements. The prescribing of the parenteral nutrition will be by a doctor or a qualified prescribing pharmacist.

Each week, the nutrition team consisting of a doctor, pharmacist, dietitian, nurse and biochemist, will discuss your child and review their progress. Any problems will be raised with your medical team.

Your child can be seen at other times if there are ongoing problems, followed by more detailed discussion if your child is on parenteral nutrition longer than four weeks.

Monitoring

While receiving parenteral nutrition, your child will need regular blood and urine tests including monthly nutrition bloods. The frequency of the blood tests depends on your child's condition.

Are there any risks with parenteral nutrition?

As with all forms of treatment, there are risks with parenteral nutrition, but these are mainly related to venous access and the nutrition itself.

Infection

As the central venous catheter is a direct route into your child's bloodstream, it needs to be kept very clean. When the nurses check and clean the catheter and exit site, they will follow precautions as advised by our Infection Prevention and Control team to reduce the risk of any germs getting near the catheter or exit site. They will use a film dressing over the connection points to lessen infection risk further.

The nurses will check the catheter every time they start parenteral nutrition, but you can help by preventing your child (or anyone else) fiddling with the catheter. If your child complains of soreness or redness around the exit site or develops a high temperature or is unwell, please tell a nurse immediately. If the catheter or exit site develops an infection, your child will need a course of antibiotics to treat it.

Blockage or breakage

There is also a chance that the central venous catheter could become blocked, in which case, the nurses will flush it with a solution to clear the blockage. The catheter can also break or develop a hole, which can be dangerous. You will be taught how to use your safety packs in these circumstances. If you leave the ward, you must carry a safety pack with you at all times. The nurses will check the catheter regularly, but you can help by keeping the catheter securely taped to your child's skin and underneath their clothes.

When will my child start feeding normally again?

This depends on the reason your child needed parenteral nutrition in the first place. This will be discussed with your ward team, nurses, doctor, pharmacist, and dietitian and on the nutrition round.

Further information and support

If you have any questions, please talk to your bedside nurse or the Clinical Nurse Specialists for Intestinal Care on 020 7813 8304 or 020 7405 9200 bleep 0921 or 1027.