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NHS
University Hospitals Birmingham
NHS Foundation Trust

Parenteral Nutrition
Information for patients and carers

Introduction
This leaflet gives you information to help you understand what parenteral nutrition (PN) is and why you may need it. If you still have questions after reading it, please speak to your doctor, nurse or a member of the Nutrition Support Team.

What is parenteral nutrition?
Normally when you eat, food is broken down and digested in your gut. The nutrients are then absorbed through your gut and into your blood stream. Parenteral nutrition is a special nutritional formulation in a bag that can be given directly into your blood stream without the need to go into your gut first. It is a way of providing nutrients when you are unable to be fed into your gut.

Why do I need to be fed like this?
You may have had a procedure or developed a medical condition that requires your gut to be rested, or your medical condition may mean that you are not able to absorb all the nutrients you need from your gut. PN provides the nutrients that your body needs during this period by bypassing your gut and the way nutrients are normally digested.

What does parenteral nutrition contain?
The bag of PN contains a sterile mixture of glucose for energy, protein for repair of body tissue (also called nitrogen), fat as another energy source, vitamins and minerals (essential for body functions such as healing) and water. PN is usually a white colour in appearance and is sometimes covered with another bag. This is to prevent daylight damaging the vitamins in the bag.

How will I be given the parenteral nutrition?
PN is given directly into the blood stream, via a central venous access device. This is a small tube placed near your neck, chest or upper arm that leads straight to a large vein. It is not possible to give PN into a small cannula in your hand, as you may have had for other intravenous fluid, as the PN is very irritating to these smaller veins. The bag of PN will be fed into the tube using a pump.

How long will it take to give?
PN is normally given each day over 24 hours. You should not be disconnected from the bag until it is empty. However, if you find this is restricting and you wish to have it over a shorter time to allow showering, for example, discuss this with the Nutrition Support Team and they can organise for you to have some hours free of the PN each day.

The number of days you need PN for will depend on your individual circumstances. PN is normally given for at least 5-7 days but can be given longer if needed. It will usually continue until you are able to be fed into your gut again or eat and drink normally.

Can I eat or drink while I am having PN?
This depends on your individual circumstances. It may be possible to eat or drink, but you must check with your doctors first. Very often people receiving PN are not able to eat or drink.

Will I feel hungry?

Even though you are being provided with all the nutrients that your body needs you will usually have no food going in to your stomach, therefore, there may still be periods when you feel hungry.

Are there any risks or complications?

Yes. There is a risk of developing infections from the central venous access device used to give your PN. Therefore the area around the device must be kept clean and staff must always wash their hands and wear gloves when handling this, or giving your PN, to prevent infection.

Also, because there is a lot of glucose in the PN there is a risk that your blood sugar levels may become unusually high. Nursing staff will do a finger prick blood test at least daily while you are having PN to monitor this. Some people have very high blood sugar levels when having PN and need to have insulin for a short time to help control this. This does not mean that you will become Diabetic from the PN as blood sugar levels usually return to normal when the PN is stopped. If you do have Diabetes then the nursing and medical team will monitor your blood sugar levels carefully and may need to change your usual treatment whilst you are receiving PN.

Finally, because the PN is being given directly in to your blood stream and bypassing normal digestion, we need to check the salts and electrolytes in your blood each day to ensure we have the balance right for you. Sometimes PN can upset your liver and we need to check for this. This means you will need to have regular blood tests (initially, each day) while you are receiving PN.

Are there any alternatives?

There is no other way of giving nutrients into your blood stream. However, we will always try to allow you to eat and drink or feed you via your gut if at all possible, as these methods carry fewer risks and complications than PN. Sometimes we need to feed you through a fine tube into your stomach or intestine whilst we are changing from PN to normal food. PN will only be given if there is a definite medical reason for it and if the team looking after you believe it will be of benefit to you.

Will I go home on PN?

Not normally, this treatment is usually given for a period of time in hospital.

What is the nutrition support team?

The nutrition support team is a multi-disciplinary team with experience and specialist knowledge of looking after patients who need PN. The team consists of a consultant gastroenterologist, nutrition nurses, a specialist dietitian and a specialist pharmacist. When doctors think their patient may need PN they refer them to the nutrition support team to be assessed. The nutrition support team will decide exactly what formulation the PN needs to be for individual patients and order the PN each day. They will do this by discussing your circumstances with your own medical team and looking at your blood test results. You are likely to see a member of the nutrition support team several times each week whilst you are receiving PN.

What is TPN?

You may sometimes hear doctors and nurses call your PN, TPN. This means total parenteral nutrition which is just another term used for parenteral nutrition. You may hear both terms used but they both refer to feeding you directly into your blood stream.

What else should I know?

If you feel dizzy, experience palpitations or become hot & sweaty, inform your nurse or doctor immediately as this may indicate you are developing an infection or your blood sugar levels may be abnormal. It is also important that you inform the team of any allergies you have.

Please use the space below to write down any questions you may have and ask a member of the Nutrition Support Team when you see them.

Nutrition Support Team Contacts

Queen Elizabeth Hospital 0121 371 4561
Heartlands, Good Hope and Solihull Hospitals 0121 424 1435
(Monday – Friday 0800-1600 excluding bank holidays)

If you require this information in another format, such as a different language, large print, braille or audio version please ask a member of staff or email patientexperience@uhb.nhs.uk.