Understanding Parenteral Nutrition (PN)

What risks are there?

There are some serious risks associated with receiving PN, which your doctor/surgeon will discuss with you prior to commencement. These are summarized below.

- Receiving feed directly into your blood may upset the functioning of your liver or cause blood sugars to rise which may need insulin to control. Regular monitoring of your blood will help us to keep your body’s chemistry balanced.

- Infections can occur as the central line is inserted into a large blood vessel and highly nutritious solutions are being passed into them. Doctors and nurses will be aware of this and will be careful to prevent any bacteria from entering the central line when they are undertaking procedures. They will also be checking the line site regularly.

- PN sometimes needs to be continued for several weeks. It is not usually possible to tell you at the beginning of the treatment how long it will have to last. Be assured however, that PN will not continue any longer than necessary. As soon as other options of feeding become appropriate they will be introduced. When this happens your PN will be decreased and then eventually stopped.

Please speak to a nurse, dietitian, doctor or pharmacist if you have any other questions.
What is parenteral nutrition?
This leaflet will help you with information about parenteral nutrition and help to dispel any anxieties you may have. Parenteral nutrition is known as PN or total parenteral nutrition (TPN). It is an alternative way of providing you with nutrition when the gut does not work or is inaccessible. All the nutrients will be introduced directly into your veins.

How is this done?
In order to provide you with PN a small sterile tube (which may also be called a catheter or a line) will be inserted into one of the large veins near your heart. This line will often be referred to as a PICC line (peripherally inserted central catheter). The line will be put in under your skin usually from your inner upper arm. These lines are inserted by specially trained nurses and in most cases can be done on the ward with some local anesthetics and sterile conditions. The procedure will take approximately 20 minutes during which time you will need to lie still. After the line is in place you will need a chest x-ray to make sure the line is in the correct place.

What is in PN?
- Glucose gives you immediate energy
- Protein - essential for growth, maintenance of body tissues and promotes healing
- Fat - to build up energy stores
- Vitamins and minerals - ensure your body functions properly and promotes wound healing
- Water - maintains normal hydration.

Why do I need PN?
Your doctor/surgeon may feel that you need to rest your gut in order to promote healing, or your gut might not be accessible. We always aim to use the gut where possible and PN is only considered when the gut is inaccessible.

Can I eat and drink while on PN?
This depends on your circumstances. Complete rest of your digestive system may be necessary, or you may be allowed small amounts of water. As soon as gut function returns you will be started on fluids or a light diet.

What happens while PN is in progress?
Careful monitoring of your progress is essential and will include:
- Regular checks on your temperature, pulse, blood pressure and breathing rate.
- Accurate recording of all fluids going in and out of your body e.g. urine, will be documented.
- Blood tests to check levels of electrolytes e.g: sodium and potassium, and that your liver and kidneys are functioning normally.
- Finger prick blood tests to check that you are tolerating the glucose (sugar) you are being given in the PN.
- The nurses will encourage you to move around as freely as your general condition allows. The pump has a battery allowing it to work for a while when it is unplugged.
- Your teeth will need to be kept clean and your mouth fresh. Plaque builds up quickly on teeth especially when you are not eating or drinking.
- Some people who have PN feel hungry and/or thirsty. Please tell us if you feel any of these and we will try to help you.
- Receiving PN over 24 hours may result in you having to pass urine in the night. A urinal or commode close to your bed may help reduce any disturbance this causes.
- You will be able to have a bath or shower but you will need to take care to avoid getting the catheter or dressing wet by not applying water directly to the area.
- You may still have bowel movements despite not eating due to the normal bacteria in the gut.