

## Department of Nutrition and Dietetics

# Parenteral Nutrition; a guide for parents and children

### Introduction

This leaflet has been written to answer some of the questions you might have about parenteral nutrition and help relieve any concerns you might have.

### What is parenteral nutrition?

Parenteral nutrition (PN) is intravenous nutrition. It is an alternative way of providing adequate nutrition when this is not achievable by eating or tube feeding, for example, after bowel surgery, with very bad diarrhoea and vomiting or when the bowel is not working properly. You may also hear it called PN or TPN.

### How is it done?

PN is given through a small catheter that is introduced into a vein by an experienced doctor.

If your child is having chemotherapy the PN may be given through the chemo line or 'wiggly'.

### Why can't a normal 'drip' be used?

The PN is best given through larger veins whereas a drip is placed in smaller veins. The solutions used in PN can cause irritation if fed into small veins.

### Will being fed into the bloodstream provide all the nutrition needed?

Yes, PN will provide all the nutrients needed to maintain good health until normal intake is resumed. A specialist paediatric Dietitian will ensure that the best possible nutrition is given.

## What does the PN contain?

PN contains:

1. Glucose for immediate energy
2. Proteins for growth and repair
3. Fat to maintain energy stores
4. Vitamins to keep the body healthy and functioning correctly
5. Minerals to help make blood cells to aid healing and to keep the muscles in working order.

## Will the PN continue over night?

Yes, PN is better tolerated if it runs through the day and night. In some cases the timing may be altered to give some time away from the pump.

## Will my child feel hungry or thirsty?

As PN does not go directly into the gut your child may experience some hunger and may have a dry mouth. Cleaning their teeth and regular mouthwashes may help.

## Can they eat and drink at the same time as having PN?

This depends on the reason for PN. Sometimes a complete rest of the digestive system is needed, or only a small amount of water is allowed. As soon as gut function improves, restarting food and drink will be discussed. Once your child is able to eat a few hours a day off the PN may be given.

## What about moving around?

The PN container will hang on a mobile stand. The pump will have a battery that will last several hours so should not restrict mobility. Washing is allowed, taking care not to get the dressing wet. Your nurse can give you more information on this.

## What happens to the bowels during PN?

Mucous, cells and bacteria in the bowels still produce a bowel movement, despite no food taken orally. PN goes straight into the blood stream and does not cause diarrhoea, tummy pain or vomiting.

## How will we know if the PN is working?

Whilst on PN it is necessary to monitor progress carefully to make sure the body is receiving what it needs, tolerating the glucose and that there is no infection associated with the line through which it is given.

- Blood samples will check electrolyte levels, kidney and liver function.
- Urine samples or toe/finger pricks will be used to check glucose levels.
- Body weight will be checked every day.

## When is the PN stopped?

When adequate nutrition is able to be given by diet or, if required, by tube feeding. The PN is usually reduced over a couple of days before stopping it.

If you have any questions about PN please do not hesitate to ask your Nurse, Doctor or Dietitian who will be happy to help.

**Your Dietitian is:** .....

If you require any further information or wish to comment on this leaflet please contact:

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[patient.information@addenbrookes.nhs.uk](mailto:patient.information@addenbrookes.nhs.uk)



## Document history

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