# FASTING GUIDELINES

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## 1. Introduction

Fasting patients for a period of time prior to general anaesthesia, allows gastric emptying and helps reduce the risk of regurgitation and aspiration at induction of anaesthesia.

The practice of fasting patients for a period of time preoperatively is based on the premise that fasting allows time for gastric emptying to occur, thereby reducing the risk of aspiration and resulting complications at induction of anaesthesia.

However, extended preoperative fasting for both fluids and solids,is unpleasant and can lead to dehydration, hypoglycaemia, hypotension or other adverse metabolic consequences, particularly in babies and the elderly.

Fasting guidelines have therefore been developed which aim to balance the benefits and risks. Adult patients should be fasted for solids including milk for 6 hours and for clear liquids for two hours. It is often the case that patients fast for longer than this for a variety of reasons.

Consequently, in addition to guidelines on minimal fasting periods, we have also included guidelines on maximum fasting periods, in an attempt to reduce prolonged fasting.

These guidelines also apply to any patients undergoing general anaesthesia including those for non surgical procedures such as endoscopy, radiological procedures, DC cardioversion and electro-convulsive therapy. Patients being sedated for procedures should be fasted also. For patients undergoing procedures under local anaesthesia fasting is not necessary, unless it is required specifically for the procedure or unless there is considered to be a reasonable risk that the patient could proceed to general anaesthesia. The term ‘surgery’ is used throughout this document for convenience’s sake but guidelines also apply to these non-operative procedures.

Diabetic individuals need to be minimally fasted.

Children’s fasting guidelines are available here.

## 2. Aim of the guidelines

These guidelines are aimed at helping to provide a consistent approach to fasting within NHS Lothian and reducing the risk of prolonged fasting.

## 3. General principles for elective surgery

**Minimum Fast for Clear Fluids – two hours:**

- Clear fluids include: Water, diluting juice, black tea and black coffee.
- Milk (non-human) and milk-containing drinks curdle (become semi-solid) in the stomach and should be considered as solids. If milk is added to tea or coffee inadvertently, it is up to the discretion of the anaesthetist whether surgery should proceed.
- Non-clear fresh fruit juices containing pulp (e.g. fresh orange juice) should be avoided within 6 hours of surgery. Newsprint should be visible through a glass of the liquid.
- Clear jellies without fruit pieces leave no residue in the stomach and may be considered as clear fluids. These may be of particular use in paediatric practice.
- Patients may drink clear fluids up to 2 hours prior to the start of the list.
- All patients should be encouraged to take a drink of clear fluid 2 hours before the list begins, unless there is a surgical contra-indication.

**4. Minimum Fast for Solids – six hours:**

- Solids and milk-containing drinks should not be consumed within **6** hours of the beginning of the operating list.
- Patients should eat normally on the day before surgery.
- Chewing gum does not increase gastric volume significantly but should be avoided as it may be swallowed inadvertently. This also applies to boiled sweets.
- Patients for a morning list should eat nothing for six hours before surgery.
- Realistically, most patients will not usually eat after midnight and this is a convenient cut-off point.
- Patients for an afternoon list should have a **light breakfast** (for example see below) at least 6 hours prior to the start of the list.
- Patients with diabetes mellitus should observe usual dietary guidelines prior to fasting.

**Light Breakfast – example**

A **small** bowl of cereals (Rice Krispies or Corn Flakes) with skimmed or semi skimmed milk. **No** high fibre cereals such as Weetabix, muesli, bran etc.
**OR**
A slice of white toast with honey, jam, syrup, or marmite

**5. Emergency surgery**

- Where it is possible or advisable to delay surgery the normal guidelines should be followed- no solids to be consumed for 6 hours prior to anaesthesia, clear fluids may be taken up to 2 hours prior to anaesthesia.

- In emergency cases it may be necessary for fasting guidelines to be over-ruled in order to expedite surgery (e.g. in the case of ongoing major haemorrhage). This is **at the discretion of the senior anaesthetist.**
- Prolonged periods of fasting should be avoided as in elective cases. Intravenous fluid therapy may be commenced to avoid dehydration as a result of restricting oral fluids if necessary.

## 6. Maximum fasting times

a. Patients should be encouraged to drink clear fluids up to 2 hours prior to the anaesthetic start time, and **should have a glass of fluid at that time**.
b. Where patients have been fasted for fluid for longer than 6 hours ward staff should contact the anaesthetist to ask whether it would be acceptable for the patient to have a drink of clear fluid. Where it is not possible for the patient to have a drink consideration should be given to starting maintenance intravenous fluids.

## 7. Enhanced Recovery after Surgery

Enhanced Recovery after Surgery or ERAS is a programme of care involving a series of evidence based interventions to allow patients to recover better following elective surgery. It has been implemented in several surgical specialties across NHS Lothian and its main areas of focus are:

- **The patient is in the best possible condition for surgery**
- **The patient has the best possible management during and after their operation**
- **The patient experiences the best post-operative rehabilitation**

Limiting fasting times and in addition providing appropriate patients with carbohydrate loading, aims at optimizing the patients preoperatively.

Carbohydrate Loading:
50g complex carbohydrate and 400ml clear fluid are given to the patient 2 hours prior to surgery. Patients can also be given additional carbohydrate drinks the night before surgery. This allows the patient to go for their operation “fed not fasted”, it can reduce the pre-op discomfort of fasting and can also reduce the stress response to surgery and allow for earlier return of gut function and subsequently improve recovery.

These drinks behave as clear fluids, so can be administered safely 2 hours pre-op as per current fasting guidelines. These clear carbohydrate drinks should be given to the patients to consume the evening before (colorectal & urology) and the morning of their operation (all specialties) using clear concise instructions relating to that specialty (see appendix 1 for example)

**These drinks are unsuitable for patients with diabetes so these patients should be advised to drink clear fluids up to 2 hours prior to surgery.**

There are two different products used for Carbohydrate loading in NHS Lothian.

Patients being admitted on the day of their operation, will be given Nutricia 'Pre-Op' bottles to consume at home as instructed.

Patients admitted the day before surgery, are given Vitaflow Preload as instructed (see appendix 2).

Both products provide the same carbohydrate loading. However, the use of sachets for in patients makes a clear distinction between these drinks and other nutritional supplements which would require a longer time for gastric emptying if given

Postoperatively:
Another key component of ERAS is the early resumption of nutrition either in the form of food and/or oral supplement drinks. Oral nutrition can be recommenced as soon as patient's feel hungry, provided that there is no surgical contraindication. Early oral intake should be encouraged as this facilitates full recovery og gut function. Nausea should be actively managed to allow patients to eat.

For further information on ERAS contact Angie Balfour (ERAS Nurse Specialist) or visit www.erassociety.org or www.erasuk.net

## 8. All day lists- good practice advice

- All day lists present a challenge when trying to avoid excessive fasting times and the associated patient discomfort
- Patients should be encouraged to drink clear fluids up to 2 hours prior to the anaesthetic start time, and should have a glass of fluid at that time.
- It is good practice to identify patients who will be going to theatre after 13.00 and arrange for them to be treated as per an afternoon list (i.e. light early breakfast; no solids from 07.00; clear fluids until 11.00).

## 9. Women in labour

- Low risk labour- eat and drink as normal.
- High risk labour (which includes those women who have an epidural placed) **clear fluids only.**
- Pregnant women are at increased risk of gastro-oesophageal reflux. Those women who are classed as a high risk labour will be given ranitidine 150 mg orally 8 hourly.
- Elective LSCS- fasted as per the normal guidelines.
- No solids to be consumed for 6 hours prior to anaesthesia, clear fluids may be taken up to 2 hours prior to anaesthesia.

## 10. Patients requiring Regional Anaesthesia only

These patients should be fasted as for general anaesthesia as they may require sedation or a general anaesthetic. Examples of regional anaesthesia: spinal, epidural, peribulbar block.

Patients having minor procedures under local anaesthetic infiltration do not need to be fasted routinely.

## 11. Evidence Base

Maltby, J. Rodger; Preoperative fasting guidelines; Can J Surg. Apr 2006; 49(2): 138–139.

Royal Cornwall Hospitals A Policy for Fasting Patients Who Require Anaesthesia or Intravenous Sedation; v2.0 January 2013

Doncaster and Bassetlaw Hospitals; Pre-Operative Fasting Guidelines; May 2007

## Appendix 1 (Example of Carbohydrate Drinks Instructions)

### Enhanced Recovery Programme
### Patient Information for Hysterectomy

Before your operation, it is recommended that you eat and drink a healthy, well balanced diet. Carbohydrates are found in food like pasta, bread and potatoes so it is recommended to add more carbohydrates to your diet before your operation. For example, perhaps have a pasta dinner the night before.

These 'Pre-Op' drinks you have been given have been specifically designed to be taken the morning of your operation. They are designed to give you some extra Carbohydrates which help give the body energy and allow you to heal better after your surgery.

**If your operation is in the morning**: You should stop eating at midnight but can continue drinking clear fluid until 06:30hrs (black tea/ black coffee/ water).

**If your operation is in the afternoon:** You can have a light breakfast at around 07:00hrs and can continue drinking clear fluid until 11:00hrs (black tea/ black coffee/ water)

Please contact the Nursing staff if you have any questions or are unsure about anything (Pre Admission Clinic – 0131 242 2633)

****If you are Diabetic, please do NOT take these drinks ****

Instructions:


**If your operation is in the morning:**

**1 drink at 06.00hrs**

**1 drink at 06.15hrs**

YOU SHOULD BE NIL BY MOUTH FROM 06.30HRS

**If your operation is in the afternoon:**

**1 drink at 10.30hrs**

**1 drink at 10.45hrs**

YOU SHOULD BE NIL BY MOUTH FROM 11.00HRS

For Nursing Staff: Please document in the patients notes that they have been given these Carbohydrate drinks.

AB, < ERAS_DRINK_INSTRUCTIONS/ Gynae> V3 July 2014



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## Appendix 2 Pre Load Preparation Guidelines

preload™

A powdered neutral carbohydrate loading drink mix to enhance patient recovery after surgery


### Preparation Guidelines

**Step 1**
- Pour 400ml of water into a cup.

**Step 2**
- Add the contents of 1 sachet of preload into the cup, stirring continuously until the powder has dissolved.

**Step 3**
- Drink as directed below.

### When to take preload

**Evening before surgery**

You need to take 2 sachets of preload.
- Drink 1 dose of preload during the evening.
- Then repeat another dose before 4am.

**Morning of surgery**
- Take a third sachet of preload at a time specified by the ward sister.

**If you have any questions please contact the dietitian / ward sister**

### Important Notice

- **Do not eat any food after midnight.**
- **After 4am the only fluid which should be taken is the third sachet of preload.**

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