Royal Berkshire NHS Foundation Trust

Surgery, anaesthesia and high body mass index (BMI)

This leaflet outlines the risks associated with surgery under anaesthetic for people with a high BMI and how we can work with you to reduce these risks. If there is anything you don't understand, don't be afraid to ask your anaesthetist (anaesthetic doctor).

What is body mass index (BMI)?

Body mass index (BMI) is the relationship between your height and weight and is expressed as a number. BMI is used to determine whether a person is of a healthy weight for their height.

What is the ideal body weight?

The ideal range for BMI is between 20 and 25. Anyone with a BMI over 25 is said to be overweight and BMI over 30 is termed obese. Obesity is the presence of excessive weight for a given height and the higher the BMI, the greater the risk of you developing medical problems.

What health risks are associated with a high BMI?

People with a high BMI are at greater risk of developing certain conditions, such as high blood pressure, heart disease, diabetes, stroke, certain cancers, infertility and breathing problems. In particular, some people develop a condition called sleep apnoea, which causes difficulty breathing at night.

If you suffer with these conditions it is very important that they are well-controlled, especially if you are having non-urgent or pre-planned surgery. This will reduce the risks of developing complications following your procedure and help to achieve a successful result for you. For example, if you are being treated for diabetes, it is important that your blood sugars are well controlled. Your GP can help you with this.

What are the risks involved in having an operation and anaesthetic for someone with a high BMI?

Patients with a high BMI can be more at risk of developing complications when they come into hospital for an operation. The extent of the risk depends on the BMI, any other medical conditions present, as well as the type of surgery being done. Your surgeon and your anaesthetist can discuss your individual risks with you but some of the complications that may affect you are:

- **Venous thromboembolism (VTE)** – this means a clot in the legs (deep vein thrombosis – DVT) or lungs (pulmonary embolism) and can occur after any period of prolonged inactivity, such as a long airline flight, bed-rest or long operations.

- **Breathing problems or chest infection.** These are more common if you already have breathing problems, if you smoke and if you are confined to bed for a long time.
- **It may take longer to perform practical procedures** such as taking blood, placing a drip in your arm and performing blocks such as epidurals / spinals, or other nerve blocks.
- Wounds may take **longer to heal** and there is **higher risk of wound infection**.

Our aim is to work with you to help reduce these risks.

What can I do to reduce these risks?

- **If you smoke, please try to reduce or stop.** Again, your GP or practice nurse may help or visit https://www.smokefreelifeberkshire.com/ or call their helpline 0800 622 6360 | 0118 449 2026 | text QUIT to 66777. You can also ring the NHS Smokefree helpline on 0800 022 4 332 or visit http://smokefree.nhs.uk
- **Lose weight** – if time allows before your operation, losing weight will improve your general health and reduce some of the risks. It may, for example, help to improve your mobility so that you are able to get out of bed sooner. This will reduce your risk of developing a blood clot. Going on a “crash” diet can be unsafe so please ask your GP or your practice dietitian for advice so you can lose weight safely with a recommended diet and exercise programme. If appropriate, before your planned operation, your GP may recommend that you are referred to consultants in weight management and weight management surgery at the Royal Berkshire Hospital. On rare occasions it may be considered safer to have such surgery before you go ahead with another planned operation. You can find out more about surgical treatments for obesity at www.bospa.org (British Obesity Surgery Patients Association).
- **See your GP if you have medical conditions that are not well-controlled**; for example, if you have asthma and are experiencing symptoms. Take your regular medication if instructed to do so and bring it with you to hospital in its original packaging on the day of the operation.
- If you suffer from **sleep apnoea and already wear a CPAP mask at night**, it is important that you continue to wear it before the operation. A period of three months is recommended to achieve maximum benefit from this treatment, but even a few weeks can make a difference. Please bring the mask with you when you come in for surgery.

What we can do to help you

- All patients having planned surgery are asked to come for a detailed “pre-operative assessment” with one of our nurses. Some patients with a high BMI will be asked to come to see an anaesthetist as well at this time – this depends on your particular medical problems as well as the type of surgery you are having. This will be an opportunity to plan your care during your forthcoming operation. If you do not see the anaesthetist in the clinic, then you will certainly be seen before your operation, on the day of your admission.
- The anaesthetist will discuss the different choices of anaesthetic available to you for your type of surgery. He or she will advise you on the method which may reduce the risks to you or help you with pain relief. Sometimes, a local, a spinal or epidural anaesthetic rather than a general anaesthetic may be suitable for some patients but it may be technically more difficult or not possible to perform.
- You will have the opportunity to ask questions and discuss any worries you may have.

- Some patients may benefit from being given tablets just before the operation to reduce stomach acid. If you are already on tablets for indigestion or acid reflux then we will ask you to take these as usual. We do not generally give you any sedative “pre-med” before anaesthetic, even if you are a little nervous, as these can make you unnecessarily sleepy afterwards and affect your breathing.
- Your anaesthetic may start in theatre rather than in the anaesthetic room for some operations.
- We will take measures to reduce the risk of blood clots in your legs and lungs, as appropriate for your operation.
- It is common for patients to need extra oxygen through a mask after their operation, particularly if they have a high BMI. This will help to reduce the chance of developing breathing problems. You will be encouraged to breathe deeply after the operation.
- We want to provide you with the best pain relief we can after the operation. This may be a combination of tablets, injections and/or local anaesthetic methods. The better your pain is controlled, the more quickly and easily you will be able to get out of bed, which will help reduce such complications as blood clots and chest infections.
- After some types of operations, and depending on any other medical problems you may already have, you may need to be cared for in a special “high dependency” area in the operating theatres or in the Intensive Care Unit. This depends on your individual needs and is usually planned in advance. In these areas we can monitor you more closely and give you the support you need more quickly.

Remember that our aim is to work with you to make your operation a success and to get you back to normal activities as soon as possible.

To find out more about our Trust visit www.royalberkshire.nhs.uk

Please ask if you need this information in another language or format.

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Next review due: October 2028.