Headache after an epidural or spinal injection

What you need to know

We have produced this leaflet to give you general information about the headache that may develop after your spinal or epidural injection and what treatment may be offered to you. This leaflet should answer most of the questions you may have, and your anaesthetist will talk to you about it further. We hope that the leaflet will help you when you are talking to the doctor. If, after reading it, you are worried about anything or you need any more information, please discuss this with the doctors and midwives who have been looking after you.

Introduction

It is common to have a headache after childbirth, whether it is a vaginal birth or a Caesarean delivery. However, after having an epidural or spinal injection, you have between a one in 100 and one in 200 chance of developing a ‘post-dural puncture’ headache.

This headache usually develops within the first week after having the epidural or spinal injection, most commonly within the first few days. It is usually felt at the front or back of your head, and feels better when you are lying down and worse when you are sitting, standing, straining or bending forwards. You may also have neck pain, sickness (nausea) and a dislike of bright lights.

What causes the headache?

The brain and spinal cord are surrounded by the fluid which is contained in a membrane called the dura. When an epidural is given in the lower back, a needle is used to position a fine tube called the epidural catheter just outside this membrane. Occasionally the needle can accidentally make a hole in the dura membrane. When a spinal anaesthetic is given, a fine needle is intentionally inserted through the membrane to inject local anaesthetic into the bag of fluid. If the needle makes a hole in the membrane, fluid tends to leak out, causing a drop in pressure in the bag. This produces the symptoms of the headache called a ‘post-dural puncture headache’. Some women describe it as a very bad migraine which is worse when sitting or standing up.
**How can I get rid of the headache?**

Bed rest and simple painkillers (such as paracetamol or diclofenac [Voltarol]) may be the only treatment you need. You should drink plenty of fluid (some people find coffee or tea especially helpful) and avoid lifting heavy weights or straining. The headache usually gets better in a few days, but if it does not, your anaesthetist may offer you a treatment called an epidural blood patch (this is described later).

If you develop a headache, you will be advised to stay in the hospital so that staff there can keep an eye on your condition. However, if you decide to go home, make sure that you have someone staying with you who can help you for the next two to three days. You should leave your phone number with your hospital team so that they can call you to ask how you are feeling.

**What will happen?**

An anaesthetist will assess you to confirm that the headache has been caused by the epidural or spinal injection. You may be seen by another specialist if the doctor feels this is necessary. The anaesthetist will discuss the treatment with you. You may be prescribed regular painkillers and laxatives (to make bowel movements easier so that you don't have to strain, as this may make the headache worse). An anaesthetist will come to see you regularly for the next two to three days (or phone you if you have gone home) to check that you are recovering well. Most women notice an improvement in their headache after a few days and feel able to manage. However, if you are unable to cope and find the headache is severe, getting worse or lasts for more than a few days, you may be offered an epidural blood patch at this stage (see below). Speak to the anaesthetist who comes to check on your progress or, if you have left hospital, you can contact the anaesthetist on the delivery suite.

**What is an epidural blood patch?**

To do an epidural blood patch, a needle is inserted into the epidural space, in the same way as when an epidural is given for pain relief. However, instead of putting a painkiller down the needle, a small amount of your own blood is taken from a vein in your arm and is injected into the epidural space. The epidural needle is then taken out straight away.

The blood will clot and plug the hole through which the fluid surrounding the spinal cord is leaking out. This helps to stop the headache.
The blood patch is usually carried out in one of the labour rooms or in the operating theatre on the delivery suite. Two anaesthetists will carry out this procedure. After cleaning your back, the first anaesthetist will numb the skin on your lower back with a local-anaesthetic injection and will insert the needle into your epidural space. The second anaesthetist will take blood from a vein in your arm or hand and give this to the first anaesthetist who will inject it into your epidural space. This procedure may feel the same as the original epidural or spinal injection.

It is normal to feel pressure or discomfort in your back while the anaesthetist is injecting the blood into your epidural space. However, if it is painful, please tell the anaesthetist. He or she will stop, but may continue with the injection once the pain has settled. The whole procedure will take about half an hour.

How do I prepare for the epidural blood patch?

Reading this information leaflet will help you understand what is going to happen. Please share the information with your partner and family (if you want to) so that they can support you. There may be information they need to know, especially if they are taking care of you following the procedure.

Your anaesthetist will discuss the procedure with you in more detail and will answer any questions you may have. The anaesthetist may want you to have blood tests. If you have any questions after reading this leaflet, you can write them down and ask the anaesthetist before the procedure.

Before any doctor, nurse or other health professional examines or treats you, they must ask for your permission. To help you decide whether to give your permission, you need to have information from health professionals about the treatment you are being offered. You should always ask the health professional questions if you don’t understand or if you want more information.

The information you receive should be about your condition, the alternative treatments available to you, and whether the procedure carries risks as well as the benefits. It is important that your permission is genuine and valid. This means that you must:

- be able to give your permission;
- have been given enough information to be able to make a decision; and
- be acting under your own free will and not under the strong influence of another person.
You will be asked to sign a consent form saying that you understand what procedure you are being offered, the advantages and the complications of the treatment, and that you agree to have the epidural blood patch.

It is important to do the following before your procedure.

- Continue taking paracetamol or codeine as advised by your doctor.
- Continue your regular medications except medications you take to thin your blood (heparin, Fragmin and warfarin) and drugs that affect the way your blood clots (clopidogrel and ticlopidine).
- Tell the anaesthetist if you have had an injection of blood-thinning drugs in the last 12 hours.
- Tell the anaesthetist if you have had a temperature or have not been feeling well in yourself in the last 24 hours.
- You will be asked to lie flat for one to two hours after the blood patch so it is a good idea to go to the toilet beforehand.

You can eat and drink on the day of the procedure, and you do not have to stop breastfeeding your baby.

Can there be any complications or risks associated with an epidural blood patch?

Bruising in the area where the anaesthetist put the needle into your back and temporary backache which lasts a few days are the most common complications of an epidural blood patch. There is a small chance (less than 1%) of the needle creating another accidental hole in the membrane of fluid surrounding the spinal cord similar to the one that caused the post-dural puncture headache in the first place. Infection, nerve damage or bleeding into your back are other rare complications.

Are there other treatments available?

There are alternative treatments but none has been shown to be as effective as an epidural blood patch. You can discuss these with your anaesthetist.

What happens after the epidural blood patch?

After a blood patch, your anaesthetist may ask you to lie flat in bed for two to four hours and not to lift anything heavy for at least two days.
In 60% to 70% of patients, the blood patch will cure the headache within a few minutes to a few hours. If you still have a headache after 24 to 48 hours, your doctor may advise you to have a second blood patch. It is very rare to need more than two blood patches. In some people, the headache goes away after the first blood patch, but then it comes back. A second blood patch when the headache returns may help. Your anaesthetist will discuss this with you.

If the anaesthetist is happy with your progress, he or she may allow you to go home four to six hours after the procedure. You can look after your baby as usual but you may need someone at home with you to help you with your daily activities.

There are other causes of a headache which may not be due to the dural tap. If the blood patch is not successful and your headache returns, you should get medical advice, especially if your symptoms get worse. If, as well as your headache, you feel drowsy or confused or are vomiting, you should come back to hospital as soon as possible.

General information

We hope that this leaflet has answered most of your questions, but remember that this is only a starting point for discussion with your doctor. If you have any questions, please write them down so that you can ask your anaesthetist when he or she comes to assess you. If you need more advice on post-dural puncture headaches or epidural blood patches, please speak to one of the members of your healthcare team (midwife, nurse or doctor).

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