

Headache Centre

Sphenopalatine ganglion pulsed radiofrequency in headache and facial pain syndromes

This leaflet is for patients, family and carers. It explains about the benefits, risks and any alternatives to this treatment. It also provides information on what you can expect when you come to hospital. It is not intended to replace discussion with your consultant. If you have any further questions, please speak to a doctor or nurse caring for you.

What is the sphenopalatine ganglion (SPG)?

The sphenopalatine ganglion is a bundle of nerve cells at the back of your nose. It is made up of sensory nerve cells, which carry pain signals to the brain, and autonomic nerve cells, which help to control watering of your eye and congestion or mucus in your nose.

What is pulsed radiofrequency?

Radiofrequency treatment uses a needle to apply an electrical impulse to a nerve or ganglion. In this case, the electrical impulse is applied in pulses, which disrupt the electrical activity without heating the SPG. This is called pulsed radiofrequency (PRF) treatment. PRF can be applied to disrupt the pain signals carried through the SPG as a treatment for some headache conditions such as cluster headache, hemicrania continua, and SUNA (short-lasting unilateral neuralgiform headache with autonomic features).

The relief may take up to six weeks to develop but should last for more than six months.

What happens during the procedure?

After an injection of local anaesthetic to the skin, the doctor will insert a needle through your cheek, near the SPG. They will use X-rays or ultrasound to ensure that the needle is in the correct place before continuing. If you are having an SPG block the doctor will then inject either local anaesthetic or a steroid before removing the needle.

If you are having PRF, a thin electrode is inserted through the needle and then an electrical impulse is applied. You will feel a tingling sensation and the doctor will ask you to tell them where you are feeling it. They may need to reposition the needle to ensure they stimulate the correct area. Once they are satisfied the needle is in the correct place, they will administer the radiofrequency pulses for a few minutes before removing the needle.

The whole procedure usually takes less than an hour and does not require a general anaesthetic. If you are particularly anxious about the procedure or find it very uncomfortable, the doctor may suggest some light sedation.

Is this the right treatment for me?

Other treatment options will be discussed with you before deciding to go ahead with the injection(s) and your consent will be needed. The decision on whether or not to go ahead with the injection(s) is a shared decision between you and your doctor. Your doctor will be able to provide you with up to date information about the likelihood of this being a successful treatment for you, and how this treatment fits into your care. If you are undecided about whether or not to have injections, further advice and information to make this informed decision can be provided. Please speak to your doctor for more information.

It is important to let your doctor know:

- if you have an infection in your body or on your skin, as your doctor will postpone the treatment until the infection is cleared
- if you have started anticoagulant or antiplatelet medicines that thin the blood, such as warfarin, rivaroxaban, heparin or clopidogrel, as this may require extra preparation
- if you take anti-retroviral medicines, as these can interact with the steroids used in the injections
- if you suffer from diabetes, as the use of steroids during injections may cause your blood sugar to change, requiring monitoring and adjustment of your diabetic medication
- if you have any allergies, in particular to local anaesthetics or steroids.

You must inform the doctor if there is any chance that you could be pregnant.

Please also inform the doctor if you do not have someone to escort you home after the procedure.

If you are planning to fly or travel abroad within two weeks of the injections, please let your doctor know as it may be best to change the date of the injections.

What are the risks?

All medical procedures carry some risk of complications – however, precautions are taken to reduce these risks. Side effects of the treatment may include difficulty chewing or swallowing, or numbness in your face. These should settle after a few hours. If you are unsure about anything that has been said to you a member of the team will be happy to answer your questions.

The procedure itself can be quite uncomfortable and may cause some irritation of the nerves which cause your headache. This can result in a worsening of your headache for up to a week or two after the procedure.

The SPG is located close to a blood vessel in the face. The doctor will use ultrasound or X-rays to position the needle carefully. However, there is a small risk that the needle could puncture a blood vessel and cause bleeding from the nose or a haematoma (bruise) under your cheek.

Although the procedure is performed using a sterile technique there is a small risk of an infection, which might not become apparent until after you have left the hospital. If you are otherwise well, an infection can usually be treated easily and should not pose any long-term risks to your health.

It is important to consider that in some cases the procedure may fail to provide any relief. It is difficult to estimate the likelihood of success as these headache conditions are quite rare and the procedures are only performed in specialist centres.

Are there any alternatives?

These procedures are usually offered to patients with severe headache conditions that cannot be relieved with conventional medical treatments, such as tablets.

It is important to consider that invasive procedures work best when they are used alongside other strategies to help manage the impact that headaches have on your life. If you feel that you might benefit from further support in managing the emotional impact of your condition, please speak to the doctor or nurse, as they can refer you to our psychology team.

How can I prepare for the surgery?

We will likely ask you to monitor your headache attacks and pain levels in a diary in the time period leading up to the procedure and also following it. This will help us to better understand the effect the procedure has in individual patients.

You can drink clear fluids up until two hours before your admission but you should not eat anything for six hours before your admission. Unless you have been advised otherwise, you should take your usual medication on the day of your procedure. Please also bring your medications with you, including any acute treatments for your headache condition (such as sumatriptan injections). If you are unsure whether you should take a new type of medicine, please contact us before you do so.

Giving consent (permission)

We want to involve you in all the decisions about your care and treatment. If you decide to go ahead with treatment, by law we must ask for your consent and will ask you to sign a consent form. This confirms that you agree to have the procedure and understand what it involves.

Staff will explain all the risks, benefits and alternatives before they ask you to sign a consent form. If you are unsure about any aspect of your proposed treatment please do not hesitate to speak with a senior member of staff again.

Will I feel any pain?

The procedure itself can be painful, though the doctor will try to make you as comfortable as possible. You may find that your pain is worse for a week or so after the procedure. It is important to remember that this does not mean it has failed. You can take your usual medications to help manage this pain.

What happens after the procedure?

You will remain under observation for around one hour after the procedure. As there may be some leftover effect from the local anaesthetic, you should be careful when you first eat and drink. Do not drink hot fluids until the numbness has worn off.

Once you are discharged, you should plan to rest for the day, before resuming normal activities the following day.

If you have been given sedation, it is important that for the next 24 hours you:

- do not drive or operate machinery
- do not drink alcohol
- do not make important decisions
- are not left alone to care for small children

If you will not be able to arrange your own transport home, you may be eligible for hospital transport. You can call the transport department to discuss this, **t:** 020 7188 2888.

If you develop any of the following symptoms within the first week after the procedure, please contact your GP, our nurse specialist or your local hospital:

- redness or swelling around the injection site
- heavy or persistent nose bleed
- high temperature or fever.

If you have been given a headache diary, please ensure that you continue completing this as it helps us to assess the outcome of the procedure and plan further treatments.

Will I have a follow-up appointment?

You will receive a letter with a follow-up appointment date and time – it will either be a telephone call with a nurse specialist or in clinic with a consultant. If you haven't heard from us within 10 weeks following the procedure, please contact the department on **t:** 020 7188 8877, Monday to Friday, 9am-5pm, to talk to the administrative team.

Any notes or questions?

Contact us

If you have any questions or concerns about your treatment, please contact the nurse via our voicemail on **t:** 020 7188 4714 or via email, **e:** headachenurse@gstt.nhs.uk. We prioritise by clinical urgency, but aim to respond to all messages within a couple of days. Our current office hours are Monday to Friday, 9am-5pm.

If you have any administrative queries regarding appointments or admissions, please call **t:** 020 7188 8877, or email **e:** gst-tr.PainAppointmentAndAdmissions@nhs.net.

If you have a significant medical problem or require urgent medical assistance, please then contact your GP in the first instance. If you think it is an emergency, please go straight to your nearest emergency department (A&E) or call 999.

For more information leaflets on conditions, procedures, treatments and services offered at our hospitals, please visit **w:** www.guysandstthomas.nhs.uk/leaflets

Pharmacy Medicines Helpline

If you have any questions or concerns about your medicines, please speak to the staff caring for you or call our helpline. **t:** 020 7188 8748, Monday to Friday, 9am-5pm

Your comments and concerns

For advice, support or to raise a concern, contact our Patient Advice and Liaison Service (PALS). To make a complaint, contact the complaints department.

t: 020 7188 8801 (PALS) **e:** pals@gstt.nhs.uk
t: 020 7188 3514 (complaints) **e:** complaints2@gstt.nhs.uk

Language and accessible support services

If you need an interpreter or information about your care in a different language or format, please get in touch. **t:** 020 7188 8815 **e:** languagesupport@gstt.nhs.uk

NHS 111

Offers medical help and advice from fully trained advisers supported by experienced nurses and paramedics. Available over the phone 24 hours a day. **t:** 111 **w:** 111.nhs.uk

NHS website

Online information and guidance on all aspects of health and healthcare, to help you take control of your health and wellbeing. **w:** www.nhs.uk

Was this leaflet useful?

We want to make sure the information you receive is helpful to you. If you have any comments about this leaflet, we would be happy to hear from you. Fill in our simple online form, **w:** www.guysandstthomas.nhs.uk/leaflets, or **e:** patientinformationteam@gstt.nhs.uk

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