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Ultrasound therapy patient guide

This leaflet outlines what to expect during ultrasound therapy treatment.

What is ultrasound therapy?

Ultrasound is a high frequency soundwave which produces a fine vibration of the cells in the body. This soundwave is the production of mechanical energy created by the vibration of a quartz crystal, which is situated inside the head of the treatment machine. It can help with the body's own natural healing processes and encourages healing in the soft tissues.

This is therapeutic ultrasound (for healing) and different to that used during pregnancy.

What will it involve?

Gel will be applied either over the area to be treated or over the treatment head of the machine to help maintain contact between the treatment head and the treatment area. This may feel cold.

Once the machine is switched on you will probably only feel the pressure of the therapist moving the treatment head over your skin. In some circumstances, you may feel a light vibration or a slight warmth. This treatment should not be painful. Please inform your therapist if you feel any increase in your symptoms.

Dependent on the area to be treated, there are other ways to apply the treatment. These will be discussed with you by your physiotherapist as necessary.

What are the benefits?

The ultrasound energy is absorbed by the injured tissues, causing cells within the tissue to vibrate. This has the following effect:

- It speeds the rate of healing, by increasing the cellular activity.
- It promotes a healthy inflammatory response to allow effective repair of the damaged tissue.
- It encourages the production of repair tissue.
- It promotes remodelling of the new tissue so that it adopts the characteristics of the tissue it is repairing.

What conditions can it be used for?

The soundwaves are absorbed the most in tissue with a high protein level i.e. collagen.

The following tissues are examples of this:

- Tendons, e.g. for tendinopathy.
- Ligaments, e.g. for ligament sprains.
- The joint capsule, e.g. for capsulitis.

- Scar tissue, e.g. for mobilising restrictive scar tissue.

What are the risks?

There are only a few instances where ultrasound cannot be used. This treatment may **not** be suitable for you if:

- You are pregnant.
- You are a child and treatment is required over active growth plates where you are still growing.
- You have an electronic implant near the area to be treated.
- You have a recent infection in the area.
- You are still bleeding in the area that needs treatment or if bleeding is expected (usually 4-6 hours after injury but can be longer in some patients).
- You have had recent radiotherapy.
- You have heart or circulatory problems e.g. significant vascular abnormalities including deep vein thrombosis, emboli and severe arteriosclerosis.
- You have haemophilia and are not covered by factor replacement.
- You have a cancer or suspected cancer over the area to be treated.
- Your skin is in poor condition in the area to be treated.
- You are not able to consent to treatment.

Depending on your clinical needs and diagnosis, alternatives to ultrasound therapy can be discussed with your physiotherapist.
The treatment for your condition may require more than one visit. If you have any other questions about your treatment please ask your physiotherapist.
More information about ultrasound therapy may be found at www.electrotherapy.org.

Useful numbers and contacts

Royal Berkshire NHS Foundation Trust
Orthopaedic Physiotherapy Department
Royal Berkshire Hospital
London Road, Reading RG1 5AN
Tel: 0118 322 7812 / 7811

Visit the Trust website at www.royalberkshire.nhs.uk

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

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