



## To The Patient: About Ultrasound

Ultrasound therapy has been in medical use for more than 40 years. This therapy is used to aid in reducing pain, muscle spasm, and joint contractures. Ultrasound is literally a sound wave produced from a vibrating crystal inside a treatment soundhead. The soundhead emits therapeutic sound waves generally in the range of 1 MHz to 3 MHz. You will be receiving an ultrasound treatment delivered using a state-of-the-art ultrasound device.

In order to deliver the sound waves efficiently from the soundhead to the body tissue, ultrasound therapy requires the use of a material that conducts sound waves effectively. This is accomplished in either of two ways:

1. Treatment gel or lotion: When the soundhead is applied directly to the skin tissue, a special treatment gel or lotion is used liberally to provide the greatest continuous contact between the soundhead and the skin. This contact is called “coupling.” During the treatment, the soundhead is continuously moved over the treatment site. The coupling agent effectively transfers the sound waves to the skin tissue and prevents air space between the soundhead and the skin. Air is a very poor conductor of sound waves; and if air were allowed between the soundhead and skin, the effectiveness of the treatment would be diminished.
2. Underwater therapy: Since water is an excellent conductor of sound waves, it is a popular practice to provide therapy to body tissue submerged in water. The soundhead, too, is submerged during the treatment. The soundhead is waterproof and may be used in this type of therapy.

One of the desired effects of ultrasound is its heating effect on tissue. However, the temperature should never reach an uncomfortable level. The ultrasound device has a temperature-sensing feature that ensures that the soundhead does not become too hot. This protects the soundhead from damage and ensures that you receive a comfortable treatment. When properly applied, your treatment will feel good and you should notice the beneficial effects.

**Should you feel pain, tingling, excess heat, or aching (especially in the bones) during the treatment, inform your therapist at once.**

**If you are being treated in an area where you lack feeling or have decreased sensation of touch, be sure to inform your therapist before treatment is started. Extra care must be used when treating such areas.**

**Some patients' skin is more sensitive to ultrasound therapy. Such patients may notice a minor rash similar to a heat rash following ultrasound therapy.**