

Ultrasound: A Common Treatment Used in Physical Therapy

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Ultrasound is a passive modality: a supplement to the primary treatment (e.g. exercise). Passive modalities typically are used to relax the patient, a distraction from pain, and/or to warm muscles for exercise.



What is Ultrasound?

Ultrasound equipment generates high frequency sound waves that are transferred to a specific body area via a round-headed probe. The sound waves travel deep into tissue (e.g. muscles) creating gentle heat.

The old version of today's ultrasound was termed short-wave diathermy. This is seldom used today.

How is treatment administered?

The Physical Therapist usually applies a hypo allergic gel to the skin, which creates a friction free surface. Using gentle, circular motions with the probe, the therapist administers the treatment, which lasts several minutes.

Ultrasound can also be used in Phonophoresis. This treatment involves the application of a topical anti-inflammatory. The anti-inflammatory medication can be mixed with the ultrasound gel and applied to the area using the probe. The ultrasonic sound waves force the medication to migrate into the tissues reducing inflammation.

Does the treatment hurt?

No. The patient will feel a tingling sensation in the treated area.

How does the patient benefit from Ultrasound?

As the probe glides over the skin's surface, sound waves penetrate the skin's surface causing soft tissues to vibrate creating deep heat. In turn, the heat induces vasodilation: drawing blood into the target tissues. Increased blood flow delivers needed oxygen and nutrients, and removes cell wastes.

The deep heat helps to relieve pain, inflammation, reduces muscle spasms, and accelerates healing. Depending on the treatment area, range of motion may be increased.

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