

WHAT IS TRANSCUTANEOUS OXIMETRY?

The vascular test *transcutaneous oximetry* is used to non-invasively measure the amount of oxygen in certain tissues of the body. Because oxygen is vital in the healing of wounds this test is useful in determining wound care, level of amputation and whether to use hyperbaric oxygen therapy for certain diseases or injuries.

During the test, an adhesive ring is placed on the skin that is attached to a special sensor. The temperature in the ring is slightly raised to allow oxygen to pass through a gas permeable membrane allowing the oxygen in the tissue to be measured.

During this non-invasive, painless test several sites on the body are selected for the transcutaneous oxygen measurements. A control site is chosen, usually on the left mid-chest, in addition to other sites around the edge of a wound. If the wound(s) is in the lower extremities, oxygen levels will be measured at sites along the length of the extremity above the wounds. Once the patient is placed in a comfortable position, the electrodes are applied to the body. Sites are prepared for the electrode placement by cleaning with alcohol and shaving if necessary.

The measurements are taken while the patient is seated or lying down. If the patient is being evaluated for hyperbaric oxygen treatment, measurements will be taken with a facemask supplying 100% oxygen. The recordings of the measurements are provided to the doctor for evaluation in regards to candidacy for hyperbaric therapy, the ability of the wound to heal or the level of amputation needed.

Transcutaneous oximetry testing is covered by most insurance plans.