

## SINUSITIS

Sinus pain usually derives from *sinusitis*, an inflammation of the mucosal lining of the paranasal accessory sinuses and especially of the maxillary and frontal sinuses. The syndrome is generally characterized by headaches (sometimes in the extreme) and sensations of pressure in the forehead, face, and behind the eyes. Other additional symptoms may include pyrexia, anorexia, vertigo, anosmia, photophobia, toothache, generalized aches, periorbital edema, and fever (usually less than 102°F). Higher fevers may be symptomatic of suppurative adenitis or bronchopneumonia. If bacterial infection is present, byproducts of bacterial metabolism may produce a toxemia with symptoms resembling those of influenza including nausea, digestive difficulties, malaise, low-grade fevers, and general feelings of illness. Emotional depression often accompanies symptoms of *sinusitis*.

The symptomology of *sinusitis* is often complicated by trigger point formations that refer pain into the face, jaw, teeth, head, and neck. Such trigger point formations may also be responsible for producing vertigo, blurred vision, and photophobia. Arthritic conditions of the cervical spine or the temporomandibular joint may complicate the symptomology of *sinusitis* by referring pain into the head and face areas. A vascular headache may also complicate *sinusitis* symptomology.

### Treatment

Ultrahigh frequency sound has been shown to be a successful mode of treatment of true *sinusitis*, when applied to reduce sinus impaction and to facilitate sinus drainage.

### Application:

- Preset an ultrasound machine to deliver a 3 MHz pulsed waveform, at 1.5 W/cm<sup>2</sup>. Direct ultrasound into the frontal sinus foramina and the antrum, on each side of the face (taking care to avoid directing the sound into the eyeball) for four minutes to each treatment site. Any good ultrasound conductor may be used as the coupling agent.

This treatment often serves to immediately relieve some of the pain. Sinus drainage may begin shortly thereafter. Repeated daily sessions (up to a week) may be necessary to provide lasting relief.

### Trigger Points

The following trigger point formations may, singly or in combination, imitate or contribute to the pain associated with the *sinusitis syndrome*: Masseter (deep), Masseter (superficial A), Masseter (superficial B), Masseter (superficial C), Temporalis (anterior), Temporalis (middle A), Temporalis (middle B), Temporalis (posterior supra auricular), Medial pterygoid, Lateral pterygoid, Frontalis, Suboccipital neck extensors, Occipitalis, Semispinalis capitis, Upper trapezius [A], Splenius capitis [A], Sternocleidomastoideus (superficial fibers), Sternocleidomastoideus (deep fibers), Orbicularis oculi, Zygomaticus major, and Splenius capitis [B].