

Orthopaedic Connection

Hand Pain and Dysfunction

By Thomas J. Haverbush, M.D.
Orthopaedic Surgeon

Transforming patient information into patient understanding.

I often think we take our hands for granted almost as much as we do our feet. Working in the Wound Treatment Center I see an awful lot of neglect of feet. But that's for another day.

Today we are focusing on our hands. What better tools have ever been created? Answer – none.

Besides the brain, hands perhaps are the most important reason the human race is at the apex of the biological kingdom. The thumb is the most important evolutionary development in making the hand function the way it does. It opposes the 4 fingers allowing humans to do lots more stuff than the lower animals.

If your hand is injured or begins to malfunction – “Houston we have a problem”, a favorite quote of mine.

The Masterpiece

So we all should agree that this appendage, 4 simple letters HAND, allows us to connect to the outside world through touch and function. It is an impossibly complicated structure of 27 bones (including 8 in the wrist), countless little ligaments, muscles, tendons, nerves and blood vessels.

The 2 hands therefore are truly at the front lines of our daily activities.

What Can Go Wrong?

Well, plenty. I like to divide this up in the following way.

Injuries, i.e. hand trauma

Chronic Hand Dysfunction

I have covered trauma to the hand before which you can locate in the Orthopaedic Connection archive.

There are a very large number of non trauma conditions that can affect how our hands work and function.

The Joints

I have to start somewhere so let's go inside the hand to the bones and joints. I mentioned 27 bones in each hand and wrist. I really have never counted how many joints there are in each hand and wrist because many bones connect with several other bones not just one like in the fingers.

The joints of course start out very smooth and slippery and you are not aware of their existence. When the joint surfaces become irregular and don't fit well together and the joints sometimes become swollen and inflamed you have developed an arthritis condition.

These changes can arise from previous injuries, come on slowly from wear and tear over time, or they can just happen from genetics (blame parents or grandparents).

Osteoarthritis

When arthritis develops in the hand from wear and tear or inheritance it is fairly predictable. Bone growth develops in the joints closest to the fingertips and is sometimes referred to as Heberden's nodes. The hand can have that appearance with no symptoms in some patients, but in others pain, stiffness and swelling are present and aggravated by activities. Base of the thumb is the second most common location for hand arthritis. You feel it, but you can't see it like the joints closest to the finger tips. It is hidden.

Arthritis at the base of the thumb can cause significant symptoms and change how you use your hands. Because this arthritis is hidden it is way underdiagnosed. Family doctors and other medical providers often don't think of it. If they do suspect that it may be present, an x-ray is ordered and the radiologist frequently doesn't notice it and the x-ray report comes back as "normal". So the family doctor or provider does not think that arthritis is present.

Since I'm out of allotted space I will have to continue our hand pain discussion next week. Hope to see you then.

My patients put their trust in me and what I do improves the quality of their lives.

Gratiot County Herald Archive and Office Website

I hope what you have read has raised questions. No problem!

Please log onto www.orthopodsurgeon.com. It has a huge amount of musculoskeletal information in the Website and the Archive of all previous GCH articles.

Check it out and be amazed what you can learn.

Good health. Good life. All the best to you. Be well.

Dr. Haverbush