

Let us introduce you to
grip strength and hand health:
shake hands . . . you'll be glad you met.



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For more information about hand health, please visit IronMind's website at www.strongandhealthyhands.com.

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IronMind has been at the forefront of the strength world since 1988, and one of our specialties is grip strength and hand health. While we cannot give you medical advice or wave a magic wand, we are sure we can make a real difference in preventing, reducing, or eliminating pains from your elbows to your fingertips. We'd like you to give IronMind's grip strength and hand health tools a try and be our next success story.

STRONG HANDS, HEALTHY HANDS

How to Prevent, Reduce, or Eliminate Pains
from Your Elbows to Your Fingertips

by Randall J. Strossen, Ph.D.



In pain? Haven't been active for a long time?

Please consult with your primary health care provider
before embarking on this or any other training program.

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Introduction

Aching fingers, carpal tunnel syndrome, elbow problems—tennis, golfer's, Little League—not to mention joint pain, arthritis, bruising, overuse, abuse . . . you name it, it hurts.

If you are suffering from pain somewhere from the elbows to the fingertips, it's time to seize the day—*carpe diem!*—and improve your hand health.

Flexibility, mobility, grip strength, range of motion, muscle balance—these are key components of having hands that are fully ready for work and play. IronMind has over 25 years of experience helping people develop strong and healthy hands, and while we can't promise miracles, we offer a range of tools and training programs for all the benefits of good hand health.

Strong and healthy hands – what they can do for you

If you suffer from any kind of lower arm pain, you know how debilitating that can be. IronMind's grip tools and training programs are specifically designed to:

- Prevent, reduce or eliminate problems associated with carpal tunnel syndrome, overuse, and muscle imbalance
- Provide a competitive advantage in sports and on the job
- Extend independent living and offer larger health benefits for seniors
- Improve finger, hand, forearm and elbow comfort when carrying out daily tasks

Bonus benefits: the larger picture

Developing strong and healthy hands requires very little equipment, time or effort, but the rewards are huge. In addition to making your hands feel better, there are even greater benefits:

- Stronger grips indicate longer lives

Research shows there is a relationship between grip strength and overall health. Having weak or diminished grip strength has consistently been correlated with disability later in life, as well as with higher mortality rates. Alternatively, a strong grip generally indicates good health.

- Reduce stress and lower blood pressure

Did you know that high blood pressure is one of the most pervasive health issues in the U.S.? Handgrip exercises, such as those detailed in this guide, increase blood flow to the brain and work to lower blood pressure. Doing isometric grip exercises several days a week should be part of your regular treatment for high blood pressure.

- Break a bad habit

Additionally, using IronMind's grip tools is an excellent way to break a bad habit, such as smoking, drinking too much coffee, or eating piles of junk food. When the urge to indulge in a bad habit hits, doing some reps on an IronMind gripper instead can help you get through that difficult moment—and you'll be doing something good for your body at the same time!

• Improve your overall muscular strength and physical condition

Grip strength is a good predictor of your general health and well-being. People with decreased grip strength showed increased risk of heart disease, stroke, and cardiovascular death. A daily exercise program that includes resistance training—that is, some kind of weight training—to build muscular strength can help improve your overall health and mental acuity. Strengthening your grip is a vital part of that program—and it will help you in your overall workout, which in turn will make you feel better, think more clearly, and allow you to live with more energy and enjoyment.

Grip strength and hand health: different sides of the same coin



Perhaps you know about IronMind's Captains of Crush grippers, but you are not trying to crack coconuts with your bare hands or develop the kind of grip strength that IronMind customers are famous for. Don't worry, because our goal here is to help you have hands that work well and that don't hurt, and what we have discovered is that the same principles that guide building strength also apply when the goal is to prevent, reduce, or heal injuries.

For example, most people head for the couch at the first sign of lower back pain, but not us. We head

for a barbell and knock out some squats and stiff-legged deadlifts because we have found that doing nothing is usually the best way to prolong an injury. By judiciously targeting the injured area, you can greatly speed recovery.

Bringing this principle to the fore, in the very early 1990s, we started to receive anecdotal evidence that the very same IronMind training tools that most of our customers were buying with the goal of developing world-class grip strength were also being used to relieve pain, often with dramatic results. The Titan's Telegraph Key, for example, was providing relief for tennis elbow, and the easier Captains of Crush grippers were being used for rehab after injury or surgery.

Our feeling is that while building strength is usually quite a long-term proposition, effective therapy can yield positive results with amazing speed. This gives you two distinct advantages:

1. you stand to get better much faster than you might have thought possible, and
2. if your first approach doesn't work, you can easily try an alternative solution

The source of the pain

While there can certainly be a genetic component to aches and pains, you can't change that, so our focus is on the controllable factors that contribute to pain or general discomfort anywhere from the elbows to the fingertips.

Use it or lose it? As true as this idea is, generally speaking, when it comes to finger, hand and elbow pain, more likely it is a case of "overuse it and bruise it."

Many of the pains have their origins in simply using the affected area too much or incorrectly. As you would guess, "too much" depends on the person, and it is also tempered by such factors as the duration and intensity of the activity. Thus, while typing on a computer is commonly assumed to be the natural spawning ground for countless cases of carpal tunnel syndrome, this is not necessarily what science indicates. Grab an industrial-strength power tool and hang on for dear life. Especially if you stay locked in an unusual position for long periods of time, you'll find that carpal tunnel syndrome is a likely result.

Principles for pain-free activity

Consider each of the key factors you can control, and then let's take what could be a problem and instead, use that principle to make things better.

1. Overuse

You might not be able to cut down the overall time you spend on an activity that contributes to your discomfort, but you can **schedule time for breaks**, even if they are short. Punctuating repeti-

five tasks with periods of relief can go a long way toward eliminating injuries. Plus, the effectiveness of the breaks can be enhanced with appropriate stretching or working on an opposing muscle group.

2. Intensity

On the job or at play, are you squeezing harder than you have to? When you are logging a lot of time in the activity, **a small reduction of effort at each step** can add up to big savings by the end of the day. Think of being a good resource manager: don't exert any more energy than is necessary to complete a task, especially if you will be engaged in it for long periods of time.

3. Form

If you lift weights, you know what a difference correct form makes, not only in training effectively, but also in protecting yourself from injury. In the workplace, incorrect lifting techniques account for preventable lower back injuries, and the counterpart for carpal tunnel syndrome is, for example, not keeping your wrists straight as you type and thus constricting the median nerve unnecessarily.

If it hurts, don't do it, and whenever applicable, be sure that you are **using the correct form** in your activities.

4. Imbalance

If all you do is squeeze, squeeze, squeeze, the resulting pain on the outside of your elbow ("tennis elbow") can often be eliminated completely—and very quickly—with some moderate training on your extensors (the muscles that open up your hand). It's amazing what keeping things in balance can do. Until you become familiar with this idea, it seems as mysterious as finding out that your lower back injury was really triggered by your weak abdominal muscles. This is what we mean by working on the opposing muscle groups: **strive for muscle balance by training in both directions**, or on both sides of your body, if you will.

On the path to pain-free

First, remember that the principles we have outlined, while generally thought of as workplace related, also apply to your training, so you'll want to observe them when you work out.

Second, follow one of the specific programs outlined below, or a close variant. We think you will find these programs tremendously effective in preventing, minimizing, or reducing the kinds of pain we have discussed.

Prevention training

You're sitting pretty: your fingers, hands, wrists, and elbows don't hurt, and you want to keep it that way. What to do?

Using moderate intensity 3 times a week, follow this simple routine:

1. IronMind EGG or Zenith gripper — 2 x 12, each hand

Position the IronMind EGG in your hand where it feels most natural, which for most people is with the large end up by your index finger and the small end down by your pinky. If using a Zenith gripper, position it comfortably in your hand, with the spring facing up. Also, feel free to experiment with different positions and don't be afraid to alternate positions on different days.

Squeeze moderately hard on the IronMind EGG or Zenith gripper and focus your attention on what you are doing. Make sure that each finger is fully engaged in the activity—no daydreaming, please. Hold the squeeze for 1 or 2 full seconds, slowly release the tension, relax and repeat the sequence.



Do this for a total of 12 squeezes and then repeat with your other hand. Go back and do it again with your first hand and then finish off with a second set for your other hand.

For full range of motion, use the Zenith gripper, especially designed for a comfortable fit and feel in your hand; and for something soft and that can be rotated, use the IronMind EGG. Two sets of about 12 reps should be perfect.

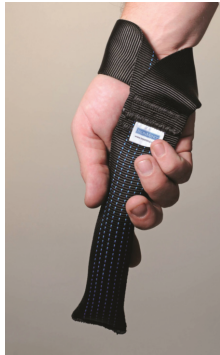
2. Expand-Your-Hand Bands – 2 x 10–12, each hand

Slip all five fingers into an Expand-Your-Hand Band so that the band is at about the height of your fingernails. Maintaining concentration and continuous tension, extend all five fingers outward. Hold the extended position for 1 or 2 full seconds, slowly release the tension and relax. Repeat for a total of 10–12 repetitions and then do the same with your other hand. Repeat with your first hand, and then again with your second hand.



3. Wrist Defender – 2 x 12, each side

There are a variety of exercises that can be done to improve hand health using the Wrist Defender:



Limp arm circles – 2 x 12, each arm

While standing or sitting, hold your Wrist Defender with your arm hanging straight down and do about 12 easy circles, moving clockwise with your whole arm, while keeping your arm just about straight and everything from your shoulder to your wrist as relaxed as possible. Do the same with your other arm. Go back to your first arm and repeat the same motion, but this time do your circles moving counterclockwise. Repeat with your other arm.



Limp wrist circles – 2 x 12, each hand

Do the same motion as in the previous exercise, but this time, rotate only your hand. Keep everything above the wrist stationary. Do about 12 circles for each hand, first in a clockwise motion and then counterclockwise.

Wrist curls – 2 x 12, each hand

While seated and holding your Wrist Defender in your hand, place your forearm on top of your thigh with your hand extending past your knee and your palm facing up. Gently lower your wrist as far as it comfortably wants to go, then curl up your hand. Repeat about 12 times and then put the weight in your other hand and follow the same steps: Switch back to your first hand and this time do the same exercise with your palm facing down (reverse wrist curls); repeat with your other hand.

Repeat the limp wrist circles – 2 x 12, to finish.

It's that simple. If you have had reasonable luck in the genetics lottery and pay attention to the general principles outlined here, this simple routine will work wonders for maintaining the good hand health you currently enjoy, so go ahead: paint a picture, play tennis, change the oil . . . put those happy, healthy hands to good use.

. . . this simple routine will work wonders
for maintaining the good hand health you
currently enjoy . . .

Reducing pain

Ouch! Can't squeeze anything? Can't even brush your teeth or comb your hair without pains anywhere from your elbows to your fingertips?

First step: check with your primary health care provider and see what they advise. Ideally you have a doctor who is familiar with this sort of discomfort and can give you a sound diagnosis and help you get on the road to recovery.

Second step: if you've got inflammation, your primary health care provider might advise a non-steroidal anti-inflammatory, such as ibuprofen. Ice might also be advised as a way to reduce any swelling you might be experiencing.

Third step: once your doctor has given you the green light to proceed, use the training routine described for prevention, but with light, rather than moderate, exertion levels, and do 1 set in the morning, another at midday if possible, and a third in the evening. Repeat this program 5 days per week.

Building world-class strength

Suppose you want to develop world-class levels of strength from your fingertips to your elbows. Where does good hand health come into play for you and how do you achieve and maintain it?

Train smart

First, to develop this level of lower arm and grip strength, you will necessarily be doing a lot of very heavy training, and the key is to always adhere to the **basic principles of sound training**. As obvious as this advice may sound, grip training is often done independently of lifting or general strength training, and what might be obvious in the lifting world is not the case when talking about grip. Be aware of advice that might not only be off base in terms of its effectiveness, but also likely to produce injuries. Remember: anyone can give training advice and anyone can train hard—but if you're not training smart, you're probably courting an injury.

Stay healthy

Second, as an extension of this idea, you have to stay healthy to train hard—it is necessary to make gains in your strength. One of the most knowledgeable weightlifting coaches in the U.S., Jim Schmitz, explained why of two particular lifters he had coached, one had gotten much stronger and had racked up more successes than the other one. The reason was that the more successful lifter had been injured a lot less, so his training had fewer interruptions, with fewer periods of losing those hard-won gains, and his rewards included winning an Olympic medal.

Protecting your health plays a vital role if you're interested in being strong, and this concept applies as much to your hands as it does to your legs and back, and with that goal in mind, keep the following ideas in mind during your training:

- warm up properly
- stretch appropriately
- allow for sufficient recovery time in between workouts
- think beyond just your muscular strength and have respect for your soft tissue and joints
- if you're whipped mentally from your workout, your body is probably redlining as well
- sometimes a short break from heavy training is the "open sesame" to your next round of gains

Consistent with these ideas, your IronMind EGG, Zenith grippers, Expand-Your-Hand Bands, and Wrist Defender are vital tools in your quest to hit the highest levels of grip strength.

1. Use these tools to warm up before your heavy training. For example, you can do some light-effort reps with your Zenith gripper or IronMind EGG before picking up the first Captains of Crush (CoC) or IMTUG gripper in your workout. Don't think warming up is for wimps: it is equally effective whether you are striving to close the CoC Trainer or the CoC No. 4 gripper.

2. Zenith grippers, the IronMind EGG, Expand-Your-Hand Bands, and the Wrist Defender are also perfect for a cool-down following an intense workout, so after you've given it your all on some maximum intensity work sets, back off and use these training tools for 1–2 sets of moderate effort in the 10–15 rep range.

3. Especially if you are not already incorporating these tools in your basic grip training, and you have healthy hands and want to keep them that way, follow the prevention training program (outlined above) on your off days.