LIGHTING THE LAMP

THE ULTIMATE HOCKEY GRIP STRENGTH GUIDE

HOCKEY TRAINING.com

TAKE YOUR GAME TO THE NEXT LEVEL
Understanding Grip Training for Hockey

Grip training gets somewhat lost in the conversation when it comes to strength and conditioning for hockey. Much attention is paid to all the muscle groups and how athletes should be going about their program design, but grip work is often an afterthought (in most conversations) and is usually summed up by saying something like:

“Well if you do deadlifts and stuff it should work your grip work enough”

Is this true though? And why does this statement just blanket over every athlete? Aren’t we all different and present different needs?

If we trained grip hard enough already, the #1 sticking points in the deadlift, chin up and barbell row probably wouldn’t be a lack of grip strength. Additionally, Joe Sakic and Al MacInnis both had very well-known crushing grip strength in the gym and we all know how those boys could shoot.

Also, when somebody says that your normal training should work your grip “enough”, what does that definition even mean? Especially once you consider how many benefits improved grip work can bring to your game, why would you want to put a limit on it right out of the gates?
The end point of the kinetic chain is in the hands. It is through your hands where power is generated, accumulated and transferred out from the body. You don’t want to make the end point of all your upper body movements your weak point, which will result in a rippling effect ultimately decreasing the output of anything you can do.

In a nutshell, if you strengthen your grip you will become stronger. This is true for everybody, but is massively true for those who have grip issues and always find themselves needing to use straps to get a proper stimulation from training.

Beyond this strength stuff, your hands can also be a window look into your Central Nervous System (CNS) and current state of fatigue. There are two telltale signs regarding fatigue management issues presenting themselves visually and kinaesthetically through the hands:

**#1:** The hands being red before training even starts

**#2:** If those weights feel real cold in your hands once you pick them up

These are two real good indicators that you are either overtrained or are currently in a state of overreaching.

If either of these situations (red hands or cold weights) present themselves, now is the time to start making decisions about fatigue management. Your CNS is telling you that you’re a little over worked.
right now and training hard might not be the smartest thing to do. This could be because your last training session was a little too intense and you need more time to recover, it could be because you’ve been slipping up on your diet lately or it could be something as simple as the fact that you didn't sleep 8hrs last night so the body didn’t fully get the chance to recover.

Whatever the situation may be, look to the hands to make some real-time adjustments to what you’re going to do today. Use this information to alter your day’s plan to maybe incorporate some lower intensity, recovery stuff so you don’t make the current problem even worse. The more tools you have at your disposal to control your recovery, the better.

Switching gears and getting back to some strength discussion.

When you train for grip you have to consider the whole body. What good would a high level of grip strength be to a hockey athlete if it’s not going to help him with his bigger, compound lifts in the gym or if he can’t express that newfound strength on the ice?

We can’t do grip work just for the sake of grip work. In that case, we’d probably be just a lot better at opening jars for our girlfriends (which is still pretty sweet though right?).

If we are going to do this thing right, we want it to connect to our other main lifts because if it can help us with our other main lifts in the gym
than it can help us through tons of different areas for hockey development. Each movement carries its own purpose and benefits, if grip work enhances our ability to do that movement than the benefits from the movement will then be better expressed on the ice as a by-product of grip training.

The most straightforward example here, grip work can often times noticeably improve deadlift strength and endurance. Deadlifts though, target the entire posterior chain and provide an overload on the body comparable to no other exercise in the book. Therefore with greater grip strength, we can develop stronger hamstrings, core, lats, spinal erectors, posture, rear delts, traps and glutes. You don’t need to be a sports scientist to see how much carryover to the game of hockey newfound muscular and strength development like that can have on your performance.

The deadlift is an obvious one though right? But how about grip strength creating a different connection with the body. What if there was a way for grip strength to not just improve the deadlift, but improved whatever musculature we wanted it to?

Thankfully (mainly to Russian sports scientists) we have access to some great research on that.

Enter, the advanced strength training principle of irradiation.
Tension plays a big role when it comes to moving big weights and allowing your body to emit the maximum power and strength it is capable of producing. This is why all advanced power lifters all cue themselves and their athletes to get as tight as you can during the bench press, squat and deadlift. The more tightness and tension you can create throughout the body, the more stable the body becomes, they more muscle fibers your nervous system allows you to recruit per contraction.

Although tension can be created in all areas of the body, the hands play the largest role in kicking this process off and brings forth the main foundation behind the principle of irradiation. By creating tension through the hands, we can “co-contract” neighbouring muscle groups to create more tension and therefore produce a greater force. Let me explain.

This concept was originally discovered by Sir Charles Scott Sherrington who personally defined irradiation as the ability of one muscle when it tenses strong enough to recruit nearby muscles and allow them to increase in tension to co-contract towards the same purpose (the movement you are doing).

Physical examination time!
Close your hand in a fist like fashion very lightly. Doing this, you will only feel the hand muscles contract.

Now, close it with 40-50% of your strength capability. Doing this, you should feel the forearm muscles really begin to contribute to that force.

Moving on up, clench your fist now with 70-80% of your strength capability. Doing this, you should now even feel your biceps, triceps and shoulder muscles tighten up.

Finally, clench your fist with 100% of everything that you got. If you really went for it, you will feel your hand muscles, forearm muscles, biceps, triceps, shoulders, chest and upper back tighten up.

This is how irradiation works and what it feels like played out in real life. This co-contraction of surrounding muscle groups travelling all around the body will magnify and boost your overall strength.

Although irradiation works with every exercise out there as it is a law of physiology, it is expressed best through major, free-weight compound movements such as the bench press, deadlift, squat, chin up, row and dip.

Remember, tension=force development and the more force we can develop through all these different movements, the greater positive impact we will have on every component of our physical development as a hockey player.
Irradiation begins with the hands and ends with the entire body. This principle is amplified through higher grip strength levels which is one of the two core reasons why I created this program.

**#1:** Improve grip strength to improve irradiation to improve everything

And the slightly more obvious,

**#2:** Improve grip strength as it is the #1 force contributor to both your snap shot and wrist shot

**NOT ALL GRIP TRAINING IS EQUAL**

The hand has an incredibly overly complicated anatomy comprising of 29 bones, 34 muscles, 29 joints, 123 ligaments, 48 nerves and 30 arteries. That is a tremendous amount of physiological density within one small section of the body but it is for this reason we have such a vast ability with our hands.

We can play the piano, make a sandwich, deadlift hundreds of pounds, farmers walk with hundreds of pounds, rock a baby to sleep and even speak a whole language with our hands. No other structural component of the human body comes even close to this in term of versatility. The mind muscle connection we have with our hands is unlike anything else.
It is because of this complexity that we can’t treat the hands like they only do one thing – hold stuff. The way in which we position our fingers, the weight we use, the width of the implement we are grabbing and the technique we use all have different impact towards how and where we are strengthening our hands. There are four primary categories in which athletes need to be concerned with in ensuring they are developing a well-rounded comprehensive strength profile in the hands:

#1: Crush

**Movement:** Shortening the distance between the fingers and the palm

**Example exercise:** Grip crushers
#2: Pinch

Movement: Static pinching position where you’re shortening the distance between your fingers and thumb

Example exercise: Plate pinchers
#3: **Static hold**

**Movement:** Static position where fingers oppose thumb

**Example exercise:** Barbell hold
#4: Lever

Movement: Forearm pronation / supination, ulnar / radial movement

Example exercise: Sledge hammer levering

Each of these 4 different categories targets the hand in its own unique way and over the course of your training periodization it is most advantageous for you to adequately stimulate all components of hand development. Balance is required in the hand just like anywhere else in the body. Take the back for example, the body can be put at...
risk for injury if the spinal erectors and traps are far over developed in comparison to the lats. Spinal stability, overall posture and rotational movements (especially the slap shot in this case) would be negatively affected if this were how you were built. The hand shouldn’t be looked at any different, balance is always key.

There are some popular strength coaches out there who say that the hands recover quickly and can therefore be trained daily.

I only half agree with that statement.

I agree that the hands recover quickly and that the training frequency for your grip work can be higher than other muscle groups but I don’t agree at all that they should be trained daily. Muscles are muscles, no matter where they are. If you’re training something hard enough in order to create a muscle building stimulus you need to give it adequate time off per week in order to properly recover and adapt so you can build that muscle and strength.

Which is why you will find in my grip training system that (depending on what phase you’re in) the maximum training frequency only reaches 2-3x per week. I have found this is the best way to develop your grip while simultaneously not negatively affecting your other exercises or overtraining your hands.

On this strategic training note, I also want to mention that it is wise to not throw everything but the kitchen sink at your hands. Meaning, of
the above four categories you should only be focusing on two components at a time during a given training phase. This rule is in place so that we can provide enough stimulus to a given category in order for it to respond positively. We only get 2-3 sessions per week and there are 4 total categories. Trying to do everything at once really only leads to minimal progress in all areas and major progress in none. The best way to approach this is to have greater focuses over different phases so we can create major progress instead of minimal progress. More focus = More stimulus = More results.

“Alright, that all makes perfect sense. But how do I know if I’ve overtrained my hands? That seems like it would be difficult to track?”

Not so much!

Remember the first two signs I mentioned above (although they are just as much systemic as they are local) about the hands being red and the weights feeling cold. These are two very good indicators of being overworked.

After this, there is two more strategies you can utilize.

The first is very straight forward. If your hands have pain, you need to take some time off grip work. I don’t mean pain as in feeling the burn during the exercises, that’s normal and productive. I mean pain as in
the real pain. Pain in the hands doesn’t do anybody any good and is indicative of three things you should probably look at:

#1 – The weight you’re using are too heavy for you

#2 – The technique you’re using during the grip exercises needs work

#3 – Your hands are overtrained

The second strategy in which you can use to measure the fatigue management of your hands is simply keeping a log book. I have been doing this for years and I always encourage all of my athletes to do it as well, it will help you leaps and bounds more than you would ever expect. In this case, here’s what a typical log book could look like for an overtrained hand:

Plate pinchers with two 25lb plates

**Week 1** – 20s max hold

**Week 2** – 22s max hold

**Week 3** – 26s max hold

**Week 4** – 26s max hold

**Week 5** – 21s max hold

See what happened there starting at week 4?
Progress was being consistently made weeks 1-3 and then froze at week 4 and started to go back down week 5. Perfect indication that your body should typically take a break from grip work once every 4-5 weeks depending on what your log book is looking like. I find most people fall within this threshold so the training blocks I created in this system are 4 weeks in length to eliminate the problem before it even presents itself. Having said that, everybody’s recovery ability is different so if you feel great and progress is continuing, this is how you control the process so you know when to stop to take some time off.