

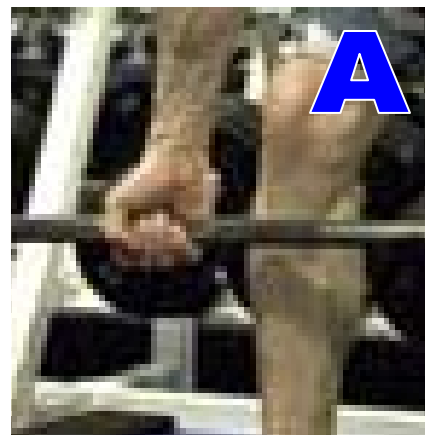
Grip Strength – Reinforcing the End Point of the Kinetic Chain

Whether you are an athlete with the goal of becoming a professional in your sport, a member of the armed forces looking to prepare for the harshest of physical demands in battle, or a civilian aiming for the heights of physical conditioning, it is impossible to do so with a weak spot in your training. For years, the Diesel Crew has been dedicated to practicing the run of training modalities that exist in order to understand them and be able to better prescribe them to the very athletes who can benefit most from this information. In 2002, our site, <http://www.DieselCrew.com>, was launched and we knew that one of the forgotten elements of “functional” training was Grip Strength, and it became our focus to get information about Grip strength to the masses. With this article, we wish to expound on the implementation of grip strength into the athlete’s routine by showing you how to implement Grip Strength, moving away from *Isolation* exercises and towards *Integration*, reinforcing the end point of the kinetic chain.

Implementing Grip Strength into the routine first requires an understanding of the different executions of Grip Strength. They are Support, Crush, Pinch, and Wrist Posturing.

Support Strength

Support Grip entails executing Grip Strength with the fingers statically wrapped around an implement. Normally, the positioning of the fingers looks something like the image to the



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right. You can see that the fingers are below the bar and the thumb wraps over them in an attempt to keep the fingers from peeling open.

Support Grip is the ultimate test of static hand strength. It is common to do timed holds where the grip is maintained for a duration. Another way Support Grip is tested is by trying to lift as much weight on the implement as possible. Finally, Support Grip can be hardened by training with thick barbells and fat-handled dumbbells. As the fingers open up around the object, it gets tougher to maintain the grip, and intensity levels increase.

Pinch Strength

Pinch is the execution of grip strength with the fingers opposing the thumb. In this position, the thumb strength is the limiting factor.

Law enforcement officers, grapplers, and hockey players know the importance of a strong and durable thumb. Officers know that if their thumb strength is compromised, they will not be able to effectively control a perpetrator in order to put handcuffs on and keep him at bay. Grapplers must have strong thumbs in order to maintain wrist control and keep the opponent at bay. Hockey players know that if the thumb tires they may not be able to score the winning goal in the third period.



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Crush Strength

As the name suggests, Crushing is the execution of Grip Strength by closing the fingers over a distance. The most famous and popular devices used to build Crush Strength are the heavy hand grippers produced by IronMind Enterprises Inc.



How does a lineman control his opponent on the gridiron? In the heat of competition, there is an explosion of pads and bodies, but amongst the mayhem there is also a handhold on the opponent's jersey, that could not be made possible without mighty Crush Strength.



Wrist Posturing

Wrist Posturing involves manipulation of the wrist through its many ranges of motion, including flexion, extension, radial and ulnar deviation, and rotation of the forearm. There are many ways to build wrist strength. One of the most



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popular is by manipulating heavy sledgehammers. Sledgehammers are highly versatile and all the angles of movement of the wrist can be effectively worked with heavy hammers.

At the beginning of this article, I mentioned "moving away from *Isolation* exercises and towards *Integration*." All of the above pictured Grip Strength exercises in Images A, B, C, and D involve isolated grip movements. Without a doubt, isolation has its place in the Grip routine. Naturally, the athlete must begin somewhere, and in the interest of safety and injury prevention, for the first few weeks, the athlete should focus on isolation movements because they enable the soft tissues of the hand to become conditioned to the stresses of grip Strength movements.

However, at some point, the athlete must break away from isolated movements and move towards Grip Strength Integration.

For years, Grip Strength was essentially ignored in most athletic training routines. Now that coaches understand the importance of Grip Strength, they are implementing it into their programs, but the next step for them is to move into Integration.

Integration involves building Grip Strength to a level that it fully compliments the rest of the kinetic chain. The kinetic chain is the entire length of power producing elements from the feet, through the legs, through the core and into the torso, arms, and hands. In sporting movements where the hands are the end point of the kinetic chain (punching, swinging rackets or bats, etc.) if any part is weak, then forces through that portion will not be fully or efficiently transmitted due to the weaknesses.

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The intent of the exercises featured in this article is solely to assist in training the athlete to improve and promote efficiency of the kinetic end point (lower arms, wrists, and hands) so that it is as proficient as rest of the chain at transmitting force.

In order to improve kinetic end point force transmission, you do not need any special or expensive equipment. In fact, I am willing to bet that two of the materials you need are in your closet collecting dust, and that the last one is out in your lawn. All you will need in order to begin reinforcing the kinetic end point are an old sweater, an old duffel bag, and some sand or dirt.

Begin by filling the old duffel bag with sand or dirt. Then, place the duffel inside an old sweat shirt. Make sure it is one that you have grown out of, or that you do not plan on wearing again, because the exercises you will be doing with it are going to stretch it out and deform it.



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The focus of the series of exercise that follows will be expression of Support, Pinch, Crush, and Wrist postural Strength, as well on speed of execution. You will notice that with the sweat shirt implement, the material is less rough and more malleable. This means it will be more easily molded to enable a variety of grip positions and emphases.

Clean and Press



The athlete should bend down and take a grip on the material of the sweat shirt and clean it to the shoulder. The athlete should then press it over head to lockout. The weight of the implement should be kept light so that the limiting factor remains the Crush and Support strength of the athlete.



Swing

Much like the two-handed kettlebell swing, the athlete will bend down and take a grip on the shirt with the implement on the ground between the legs. Violently firing the hips, the athlete will propel the implement up and overhead.



Lineman lift

This time the implement will start out on top of a barrel or other raised position. The athlete will start out in a low stance. The athlete will explode upwards and quickly grasp and lift the implement from the top of the barrel. The athlete must squeeze hard in order to break the inertia of the implement from the barrel and to lift it up to the front raise position.



Rotational Throw from Barrel

Again, this time the implement will start from the top of the barrel. The athlete will start out facing 90 degrees away from the implement. Then, quickly the athlete will turn, take a grasp on the implement and execute a powerful rotational triple extension movement and throw the implement as far as possible. For variety, the implement can begin at a lower or higher position.



Snatches

The malleable properties of the sweat shirt make for a variety of ways you can grasp it and execute movements. With this demonstration, the end of the shirt is twisted and folded in a cylindrical shape and grasped as if lifting a thick pipe in a vertical position. From there, the athlete executes a snatch, raising the shirt implement overhead in one motion. Cleans can also be done in this set-up, as well as swings and throws.



Conclusion

Normally, Grip lifts are done slowly and performed only to lockout, as in a deadlift. The exercises suggested here are advanced in that they require an immense amount of all the aspects of Grip Strength (Support, Pinch, Crush, and Wrist Posturing) all while executing the exercises at dramatic speed. All Grip disciplines are worked simultaneously and the integration aspect is reinforced. Implementing exercises such as these will ensure that the hands, the end point of the kinetic chain, become an outlet for the power generated by the rest of the body.

I hope this has been helpful to you, and I invite you to direct any questions, comments or feedback to me at jedd.diesel@gmail.com. Also, please check out our website at <http://www.dieselcrew.com> for more innovative ideas on how to train the entire kinetic chain, and at the same time develop a beastly Grip. I wish you all the best in your training. Thank you to Ryan Lee and Zach Even-Esh for allowing me to take part in this project.



JEDD JOHNSON, CSCS

Jedd Johnson played Basketball and Baseball at Owanda High School in Pennsylvania. Later, he played Division 2 baseball for two years at Mansfield University of Pennsylvania, before taking on strength training as his main interest.



Credentials

Jedd has Certified Strength and Conditioning Specialist credentials through the National Strength and Conditioning Association, and is a regular speaker/presenter at the Pennsylvania State Strength and Conditioning Clinic.

The Diesel Crew

In 1999, Jedd and Jim 'Smitty' Smith formed the Diesel Crew and began formulating the Diesel Method, a strength and conditioning system involving the incorporation of various training disciplines. The Diesel Crew is now recognized as the leaders in grip strength.



Jedd has authored Grip Articles for Straight to the Bar. Numerous grip and strongman articles for the Diesel Crew.



Strongman Contests

- 2003 - TPS Massachusetts State Strongman Championships
- 2004 - TPS Massachusetts State Strongman Championships
- 2004 - Maryland's Strongest Man
- 2005 - Wise Wellness Strongman Contest
- 2005 - Saxonburg Strongman Contest
- 2005 - TPS Massachusetts State Strongman Championships
- 2005 - Maryland's Strongest Man
- 2006 - Stronger Than All II
- 2006 - Wise Wellness 2006



Grip Contests

- 2003 - Battle for Grip Supremacy
- 2004 - Feats with Hands
- 2004 - Global Grip Challenge '04
- 2005 - TPS Grip Assault
- 2005 - Global Grip Challenge '05
- 2006 - Global Grip Challenge '06
- 2006 - Backyard Bastard Bash II



Jedd has put nearly 350 pounds overhead and lifted 400 pound Atlas Stones. He is an IronMind Certified Captain of Crush. He has lifted the 50-pound Blob, pinched two 45-pound plates, deadlifted the Inch Replica dumbbell with one hand, bent the IronMind Red Nail and the Fat Bastard Barbell Co.'s Grand Bastard Nail, as well as several other renowned Grip feats.

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