SUPERCHARGING YOUR BENCH PRESS

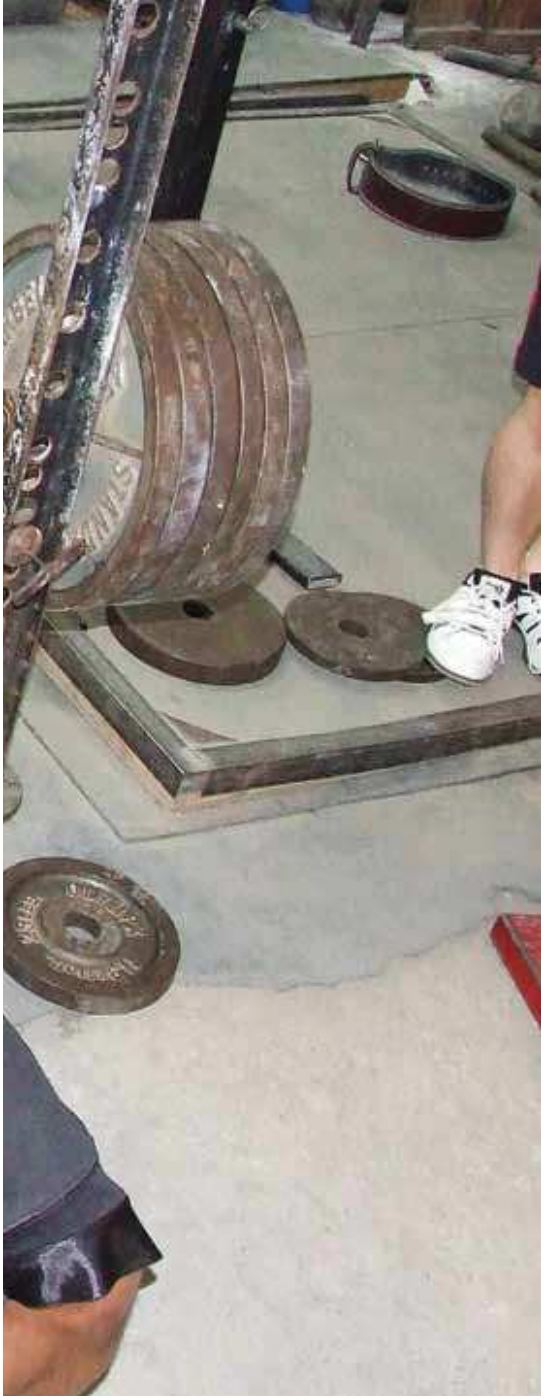
BY JOSH BRYANT

A more explosive bench press is a bigger bench press. If raw bench pressing were a religion, speed would be canonical scripture. Let's buck the establishment and look at some unconventional methods that will have you bench-pressing like a hydraulic-powered machine.

BENCH EXPLOSIVE, BENCH MORE

Despite the bench press being classified as a low speed strength assessment, if you press the weight with enough speed, you will outrun any potential sticking points. Some studies suggest sticking points are manifested because bar speed slows.

Louie Simmons bluntly said, "It is essential that explosive strength plays a large role in training, as it is not only a means of developing absolute strength but also a method of raising physical fitness that is directed toward solving a sport specific task." In layman's terms,



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— Louie Simmons

build more explosive power, bench bigger weights.

Lifting weights fast makes them feel lighter. Without dragging the ivory tower of academia into this, you have a homework assignment. Walk up to a dumbbell rack and grab a 50-lb. dumbbell off of the rack slowly. Then snatch that same dumbbell off the rack quickly. It will feel lighter when the dumbbell is picked up faster. You should not lift a heavy weight with the intention of lifting it slowly.

Max weights may move slowly, but the intention of your Central Nervous System (CNS) needs to be to recruit a maximum number of motor units as rapidly as possible. If you take five seconds to press a max weight, there is a much greater chance to encounter a sticking point than if it takes you two seconds.

Let's take a look at some ways to build an explosive bench press.

COMPENSATORY ACCELERATION TRAINING

Dr. Fred Hatfield, co-founder of the International Sports Science Association (ISSA) and author of numerous books on training, devised Compensatory Acceleration Training (CAT).

CAT is nothing more than lifting weights with maximal force by controlling the negative and exploding as hard as possible on the positive.

Bodybuilders talk about muscle intention, or feeling the targeted muscles working. For instance, when performing a bicep curl, you can feel the biceps working.

I am going to introduce you a concept I call "movement intention." For bench-pressing, this means the concentric (positive) portion is performed with the intention of moving the weight as fast as possible.

If lifting a barbell is a war, the CNS is the general that directs your muscles (the soldiers) to accelerate the bar is fast as possible.

By training your submaximal weights with maximal force, you derive many of the strength training benefits of maximal weights — and lifting a maximal weight with intent to move it as fast as possible provides explosive strength benefits. Your body adapts in a large part to your CNS' intent to move the weight as fast as possible.

Bottom line: A light or heavy weight work set on the bench press needs to be performed as explosively as possible.

MAXIMIZE TRAINING ADAPTATIONS

By using this technique with each rep and each set, you can maximize training adaptations.

You can four-board press more than you can bench press with a full ROM. As leverage improves you have two options: accelerate the weight or hit the brakes and ride cruise control.

CAT simply means you compensate improving leverages by hitting the gas.

Common sense would tell us you get a superior training effect by producing maximum force through the entire bench press range of motion, not just a portion of it. If acquisition of strength is your objective and/or building a Herculean physique, then train in a CAT style.

Many machine manufactures have attempted to design machines to compensate for improved leverage. Machines have preset movement patterns to eliminate stability requirements and control resistance and movement speed. Adaptations pale in comparison to compensatorily accelerating the almighty barbell.

CAT LEARNING CURVE

Fred Hatfield said, "Slamming a weight to the end point in the range of motion certainly would cause injury. The 'learning curve' involved in slowing the movement down just before lockout is very small. Anyone can learn how to do it on the first try. It should never be a problem."

CAT PRACTICALLY APPLIED

This week, hypothetically, you are bench-pressing five sets of four reps in training. If you are training like most iron neophytes, you come off the chest forcefully — but as leverage improves, you flip on cruise control and coast to the finish. This obstructs gains! Let's look at what happens set by set.

Set 1: No bench presses were heavy enough to stimulate any sort of overload

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that would lead to strength or power gains. Zero out of five reps provided adaptive overload, that's a 0-perent efficiency rating.

Set 2: The bottom half of the last rep required enough intensity to induce some overload. Half out of five reps produced an adaptive overload, that's a 10-percent efficiency rating for true strength gains. 5/5.

Set 3: Same as Set 2.

Set 4: The bottom half of the last two benches produced adaptive overload. Two halves equals one whole, this set as an efficiency rating of 20 percent. 1/5.

Set 5: The bottom half of all five reps produced adaptive overload. Five halves equal two and a half, still only a 50-percent efficiency rating.

BENCH PRESS EFFICIENCY RATING

Your bench press session consisted of 20 total repetitions, but only nine halves produced stimulation for adaptive overload or, in other words, actually helped you get stronger. Nine halves is 4.5, 4.5 out of 20 is 22.5 percent. That's a pretty poor efficiency rating. While people make some gains training this way, they stagnate quickly and their workouts aren't maximized.

Just think if all 20 reps were performed in CAT style. You'd be much stronger over time. You have to produce force to lift the barbell, force is mass x acceleration, so even lifting submaximal fast you can produce maximal force with less weight and less strain on your CNS.

To maximize gains and training adaptations, give CAT a try.

BENCH PRESS-SPECIFIC PLYOMETRICS

The prime mover muscle in the bench press lockout is the triceps. The muscle that can either slow down or stop a movement is the antagonist muscle. In this case, it's the biceps that serve to prevent hyperextension.

Biceps essentially serve as a built in safety mechanism. The problem is this built-in safety mechanism is like an overprotective parent and acts way too quickly. Our objective is to inhibit the biceps from acting too fast. CAT is one way to achieve this. Bands and chains are another because as leverage improves, resistance increases, allowing you to produce more force longer.

Bench press plyometrics serve as the antithesis to the antagonist muscle. In other words, they put the biceps in their place by programming them to not act early. Here are a few examples:

Depth jump push-up (long response). Start by lying in a push-up position with your hands on top of a stable surface, like a 4-inch box. For the downward phase, move your hands from the top of the surface down to the floor, keeping your hands slightly wider than your shoulders. Allow your chest to come about an inch off the box. For the upward phase, push up as fast and as high off the ground as possible, land in the starting position and repeat.

Depth jump push-up (short response). From the same starting position as the long response depth jump, push up. The downward phase is the same as the long response depth jump. Immediately, when the hands hit the ground, be ready to come back to lockout on top of the box. For the upward phase, push up as fast and high off the ground as high as possible and land in the starting position, then repeat.

Explosive push-ups. Start by lying in a push-up position with one hand on a 3- to 4-inch surface and the other hand on the floor. For hand spacing, try and replicate your competition bench press grip or the grip you will use for your max. We are after transfer of training. Come down until your chest touches the box. For the upward phase, explode in the air as high as possible. Land on the box. Repeat.

EXPLOSIVE POWER, NOT ENDURANCE

These plyometric modalities are used to build explosive power for your bench press. They are not strength endurance, max reps. Sets of three to six work great.

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Doing these prior to bench press can potentially help you bench press more by activating your CNS.

This is an advanced training modality and is most beneficial for athletes that can raw bench 1.5 times their body weight or more.

BUILD STARTING STRENGTH WITH DEAD BENCHES

Rate of force development in lay terms refers to how quickly you can develop tension a muscle. The faster you can develop force, the more you can potentially bench press. One way to enhance RFD is by building superior starting strength.

Superior starting strength in the bench press can be developed with pausing in training. Well, that's partially true, but there's more. A 2010 study at The Josef Pilduski University Physical Education Department in Warsaw, Poland, along with the Biomechanics Department at Semmelweis University in Budapest, Hungary, showed that a one-second delay (pause) at the bottom of the bench press caused a disruption of 55 percent of the stretch shortening cycle benefits derived on the concentric portion of the bench press.

In other words, after a full one-second pause, 45 percent of stored elastic energy from the negative portion of the bench press is helping you. So a long pause causes some disruption in the "help," but you are still getting a partial free ride. Let's explore an alternative that completely eliminates any help the stretch shortening cycle provides.

The concentric-only bench press is what I call the "dead bench." Simply lie down on a bench placed under the bar in a power rack. Place the bar on the pins, making sure the bar is in a position it would normally be at the bottom of your bench press.

Start the weight anywhere from ½ inch off your chest to two inches off and push the weight to lock out as explosively as possible. Long armed lifters should be toward the 2-inch range. Because of their longer eccentric phase, they get more "spring" out of the bottom from the increased negative ROM.

DEAD BENCHES AND WELFARE REFORM

Think of the short stretching cycle as "welfare," or a free ride, because of the assistance provided to starting strength. Dead benches are welfare reform because they completely eliminate the stretch shortening cycle and the "free" extra force production it derives.

Dead benches are a great movement for an athlete who wants to gain strength but not add muscle mass because strength gains are enhanced via the ability of the CNS to efficiently recruit the proper motor units. Basically, you are keeping your car the same size but increasing the engine size. The result is the car goes a lot faster.

The dead bench, of course, should be performed for singles. Even after the pause, almost half the elastic energy aids in the concentric. Not what we want. The variables to increase intensity on the dead bench are shortening rest intervals, adding more singles to the same weight, adding more weight and adding bands or chains. Lengthen rest periods and decrease the number of singles as the weight gets heavier. Only accounting for bar weight is a good prescription for a quick stall out.

Week one might be eight singles with a one minute break, then week six might be four singles with a three-minute break. Obviously the weight has increased, but the rate of perceived exertion may be the same both weeks.

Dead benches are not to be done in place of regular bench presses! The bench press is a reversible muscle action. The dead bench press is a concentric only muscle action, and while this is a king for building starting strength, to get better at the bench press, you must bench press.

IT'S ABOUT HOT, NASTY SPEED

Let's contrast the concentric phase of the bench press to a 100-meter sprint. Like the 100-meter dash, during the bench there is the acceleration phase, the constant speed phase and the deceleration phase.

The drive off your chest is the start from the sprinting blocks, which marks the beginning of the acceleration phase. While our sprint acceleration counterpart can last anywhere from five to six seconds, our bench acceleration is contained to the initial "pop" off of the chest and those first few inches at the beginning of the range of motion. However, if this initial speed is lost, both the bencher and the sprinter are screwed.

That's why maintaining constant speed is so important in both the bench press and the 100-meter dash. Benching the heaviest weight possible and smoking the competition on the track both require moving at top speed for as long as possible. In sprinting, maintaining constant speed is termed speed endurance, whereas on the bench this is what we call mid-range power. The bottom line is you need to bench press as explosively as possible through the entire range of motion.

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FINAL THOUGHTS

CAT, upper-body plyometrics and dead benching all are proven techniques for taking a bench press from average to great. You've been given the building blocks, now it's your job to apply the mortar (programming) that takes your bench from good to great. **PM**

Josh Bryant trains some of the strongest athletes in the world at Metroflex Gym in Arlington, Texas, and via the Internet. Along with his receiving ISSA certifications in fitness training, nutrition and conditioning, he was awarded the title of Master of Fitness by the ISSA. He also has a master's in exercise science. Bryant has won national and world titles in powerlifting and Strongman, and was the youngest person in powerlifting history at 22 to bench press 600 lbs. raw. He has squatted 909 lbs. in the USPF, officially bench-pressed 620 lbs. raw and deadlifted 800 lbs. raw.

To learn more about Bryant or to sign up for his free training tips newsletter, visit www.JoshStrength.com. You can also follow him on Twitter (@JoshStrength) or at Facebook/The-JoshStrengthMethod. He is available for online training, consultations and seminars.