



THE ONLY SUPPLEMENTS YOU NEED TO GET THE BODY YOU WANT.

DOES BLOOD FLOW RESTRICTION (OCCLUSION) TRAINING REALLY WORK?



Blood flow restriction training is making waves of late. It sounds new. It sounds scientific. And some are saying it's revolutionary.

Well, it also smacks of artifice. Like it was contrived by marketers to sell the latest round of magazines, pills, and powders. And so if you've been skeptical, good. You should be.

Eventually, you learn that there really is no shortcut to building a strong, muscular, lean body. There are right and wrong ways of going about it, of course, but at least 80% of your long-term results will come from diligent application of the fundamentals:

- ✓ An emphasis on heavy compound lifting.
- ✓ Sensible workout programming.
- ✓ Ensuring you recover adequately.
- ✓ Proper diet and nutrition.

Everything that falls outside of those boundaries should be viewed with a gimlet eye. As, at best, marginally important.

Which brings us to the subject at hand: blood flow restriction training (also known as occlusion training).

What is it? How is it supposed to work? How effective is it? Is it dangerous? How do you do it correctly?

WHAT IS BLOOD FLOW RESTRICTION TRAINING?

Blood flow restriction training involves, well, restricting blood flow to a muscle group while training. It's also called "occlusion training" and "KAATSU training."

The first thing you need to know about BFR is the goal isn't to completely cut off blood supply to a muscle. It's simply to slow down the rate at which blood returns from the muscles to the heart.

This causes blood to remain inside your muscles for longer than normal, which, as you'll soon see, influences muscle physiology in several ways.

HOW DOES BLOOD FLOW RESTRICTION TRAINING WORK?

Blood is the body's delivery system for oxygen, nutrients, glucose, hormones, and other compounds needed to simply stay alive, let alone lift weights, jump, run, and the like. That's why muscles require a steady supply of blood to work.

Your heart pumps blood to your muscles via arteries, which are large, muscular-walled tubes running throughout the body. That blood makes it way back to the heart through veins, which are a different set of tubes crisscrossing your body.

When you engage in resistance training, and especially in higher rep ranges, the amount of blood going from your heart to your muscles outpaces the amount returning from your muscles to your heart.

That's part of why you get a pump. That pump diminishes when you rest in between sets because arterial blood flow drops and blood is slowly evacuated from the engorged muscles.

Well, the point of blood flow restriction training is to prolong the pump. This is accomplished by tying a band around the limb(s) you're training, which allows blood to pump in but restricts the flow out.

HOW DOES BLOOD FLOW RESTRICTION INCREASE MUSCLE GROWTH?

When you're working out, your muscle cells burn through energy at a much faster rate than normal.

As they churn through fuel stores, metabolic byproducts build up faster than your body can clear them out, and some of these molecules act as anabolic signals, telling your body to increase muscle size and strength.

In technical jargon, this process is known as "metabolic stress," and it's one of the three primary ways that you can trigger muscle growth (with progressive overload and muscle damage being the other two).

Because blood flow restriction training slows the rate at which these byproducts are flushed from your muscles, it allows them to hang around longer and have a greater anabolic effect on muscle cells.

In other words, it amplifies the muscle-building power of metabolic stress.

Resistance training also causes cells to expand and fill with fluid and nutrients. This is known as "cellular swelling," and it too acts as a signal for muscle growth.

Occlusion training magnifies the muscle-building power of this, too, by increasing the amount of time that your muscle cells stay swollen.

Research also shows that blood flow restriction can enhance certain genetic signalling pathways involved in muscle growth.

You see, your body uses a complex network of chemical messengers to tell cells to grow or shrink.

One of them that says “grow” is the protein called the mammalian target of rapamycin (mTOR), and one that says “shrink” is the protein myostatin.

Studies show that blood flow restriction training increases levels of mTOR and lowers myostatin levels, which creates an environment in your body more conducive to muscle growth.

Blood flow restriction can also cause muscle cells to release their own anabolic hormones through a process known as autocrine signalling, and by keeping blood pooled in the muscles for longer periods, these hormones have more time to interact with muscle cells.

Yet another way that BFR can help you gain muscle faster has to do with what happens when you push your muscles to the point of failure, where you simply can’t get another rep.

You’ve probably heard that muscles only grow in response to the last few reps of your sets—the grinders that light your muscle bellies on fire.

That’s not exactly true, but it’s not wholly off-base, either.

You see, one of the easiest ways to ensure you continue to overload, damage, and fatigue your muscles is to frequently push them to failure, or close to it (one or two reps shy).

When you do this, you activate much higher amounts of muscle tissue than with easier sets, and this positively influences muscle building.

That’s why regularly pushing your muscles to the point of failure, or just shy of it, is a very important aspect of gaining muscle and strength.

Now, with a normal weightlifting set, you only reach this point at the very end, after you’ve already done several reps.

Thus, if you wanted to increase the number of times your muscles taste failure in a workout, you’d need to do more sets and a lot more reps.

This is well and fine, but you can only do so much work per major muscle group per week before your body falls behind in recovery and overtraining symptoms set in.

Blood flow restriction training doesn't increase muscle activation levels, but it does allow you to achieve higher levels of muscle activation with less muscle damage than would otherwise occur.

So, to summarize, here are the benefits of BFR:

- ✓ By using lighter weights, your tendons, ligaments and joints aren't placed under as much strain, which allows you to do more volume with less risk of injury or overtraining.

This can also be helpful if you're already injured or dealing with some nagging aches and pains. BFR allows you to train more effectively with lighter weights that (hopefully) don't aggravate the problems.

- ✓ Assuming you're not a new weightlifter, research shows that adding BFR sets to heavy traditional sets can increase strength more than heavy training alone.
- ✓ If you're deloading or taking a longer break from training, you can use blood flow restriction training to better maintain your conditioning with much less muscle damage and fatigue.
- ✓ If you're not feeling up to a heavy workout for whatever reason, you can use BFR to have an effective but less stressful training session.

IS BLOOD FLOW RESTRICTION TRAINING DANGEROUS?

Stinting blood supply to muscles while working out sounds like a bad idea. Like something with a long list of nasty side effects.

Well, surprisingly, research shows there's no evidence that blood flow restriction training is dangerous.

This means that you have to make sure the cuffs/bands aren't too tight, but, as you'll see, this is pretty easy to do. If they're tight enough to cause problems, they're going to be very uncomfortable and you're going to start losing feeling in your limb(s), which is impossible to miss.

One other common concern with occlusion training is that artificially increasing muscle pump and swelling is going to damage the muscles in some way. It won't.

HOW TO DO BLOOD FLOW RESTRICTION TRAINING CORRECTLY

The first thing you need to know about BFR is it's just for arm and leg training. There's no practical way to restrict blood flow in any other major muscle groups.

Quick-release medical tourniquets tend to be best for the arms, and elastic knee wraps or exercise bands are usually easiest for the legs.

Next is learning how to wrap your arms and legs properly.

- ✓ If you're wrapping your arms, the band should be tucked into your armpit.
- ✓ If you're wrapping your legs, the bands should be nudged up against your crotch.
- ✓ In terms of tightness, you should be going for a 9 out of 10 for the arms, and a 7 out of 10 for the legs.

Once you have the right tools and know how to use them, you're ready to go. From here, all you need to know is...

Continue with your current strength training plan.

Remember that BFR is something to be worked into a well-designed workout program. It shouldn't be all that you do.

Save blood flow restriction for your accessory exercises.

You should still begin your workouts with your heavy compound sets.

Specifically, use BFR on your “accessory exercises,” which are usually isolation exercises that can be safely taken to muscle failure. For example, dumbbell curls, leg extensions, triceps pushdowns, and leg curls.

Start with doing 3 to 5 BFR sets per workout with a weight that allows for 20 to 30 reps (about 50% of 1RM if you’re an experienced weightlifter).

DON'T MAKE THESE 4 BFR MISTAKES

As simple as occlusion training is, there are plenty of ways to mess it up.

Mistake #1 Using blood flow restriction before it can really benefit you.

Studies show that beginners don’t benefit as much from BFR as more advanced lifters.

The reason for this is simple: When you’re new to weightlifting, your body is hyper-responsive to it. It reaches its “anabolic ceiling” fairly easily with just proper diet and progressive overload, making BFR redundant.

Mistake #2 Tightening the tourniquets until they hurt.

Remember: you’re not looking to cut off blood flow completely. You want enough pressure to restrict the flow of blood back to the heart but not so much that blood can’t make its way into your muscles.

Mistake #3 Going too heavy with the weights.

You might be surprised how quickly you run out of steam when you first try blood flow restriction. That’s why you want to err on the side of using less weight, not more. Start light and increase incrementally until you’ve got it dialed in.

Mistake #4 Exclusively using blood flow restriction instead of heavy weight training.

I have to say it again: Blood flow restriction training isn’t a replacement for traditional weightlifting.

While it does produce more metabolic stress, it doesn’t produce much muscle damage or overload, which are more powerful muscle-building stimuli.

There’s also the issue of exercise limitations. If you want to build a strong, muscular physique as quickly as possible, you’re going to need to focus on several key lifts:

- ✓ Squat
- ✓ Deadlift
- ✓ Bench Press
- ✓ Military Press

And BFR only lends itself to the squat.

THE BOTTOM LINE ON BLOOD FLOW RESTRICTION TRAINING

By itself, it can produce similar results to traditional strength training, and when combined with it, the overall results are magnified.

That said, it's not worth the hassle if you're new to weightlifting because it's not going to have any noticeable effects. If you're an experienced weightlifter, though, or if you're injured or limited in equipment, then you may be able to benefit from it.

Real science. Real supplements. Real results.
Get the results you want when you shop our line of bodybuilding,
pre-workout and weight loss stacks and supplements.

[**Shop Supplements Here**](#)

YOU SHOULD BE GETTING MORE FOR YOUR SUPPLEMENT MONEY.