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## BLOOD FLOW RESTRICTED EXERCISE



! Patient Overview



# Blood Flow Restricted Rehabilitation

Blood flow restricted (BFR) rehabilitation is the brief and intermittent occlusion of venous (veins) blood flow using a tourniquet while exercising. Using this technique you can exercise with significantly lighter weight while still creating a hypertrophy (growth) and strength response. Traditionally to get a hypertrophy and strength response in your muscles you would need to lift a heavy load.

## Application

The goal is to reduce just enough blood flow to create positive changes. However, the amount of pressure used varies between individuals. The size of your limb, density of the soft tissue in your limb, blood pressure, placement of the tourniquet cuff and width of the tourniquet cuff all must be taken into account when determining your personalized pressure. Your healthcare provider will utilize a specialized tourniquet system with built in monitor to account for these variables. Additionally, your healthcare provider will discuss potential contraindications to this treatment with you too determine if you are a candidate.

## Training

Once your personalized pressure is determined you will begin specific exercises based on your rehabilitation plan. Even though you are lifting a light weight your muscle will begin to feel like it is working very hard. This feeling in your muscle is the build up of lactate and is the desired response of this training. It is important that you complete the total number of sets and repetitions prescribed by your healthcare provider in order to maximize this response. You may also begin to sweat and feel your heart rate rise similar to a heavy workout. This is common and expected.

## Effects

After you have completed your exercise session and you have built up sufficient lactate many positive effects can occur. These include an increase in growth hormone and other anabolic (positive) muscle growth factors. There will also be an increase in muscle protein synthesis, your muscles ability to grow. You should discuss proper nutrition guidelines with your healthcare provider to maximize these effects.

## Side Effects

Adverse side effects are rare. The most common effects after this training are residual swelling in the limb, a fatigued muscle and possible some mild soreness. These are transient and usually resolve within 24 hours. If you have prolonged swelling, fatigue or soreness discuss this with your healthcare provider along with any other concerns you may have.

