

Blood flow restriction interventions before and after anterior cruciate ligament reconstruction: A systematic review - Layman's Summary

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Blood flow restriction (BFR) is an intervention sometimes incorporated into pre-habilitation prior to surgery or rehabilitation after surgery. BFR involves the use of a tourniquet to restrict blood flow to a limb.¹ Physical therapists may also use BFR for people who are frail or weak, such as the elderly, in order to strengthen them more safely than if they were to use heavy weights. It is thought that BFR mimics the effects of using heavy weights, without the risk of injury.² A person may undergo anterior cruciate ligament (ACL) reconstruction surgery when his or her ACL is ruptured. After surgery, the newly-reconstructed ACL is fragile and needs time to heal.³ Some physical therapists have started using BFR before or after ACL reconstruction surgery. However, this has not yet been well-examined. This study compiled multiple experimental studies to look at their results all together. Overall, it was found that blood flow restriction interventions did not yield superior effects before or after ACL reconstruction compared to normal pre-habilitation or rehabilitation. This is important for consumers to understand because BFR may not be covered by health insurance depending on what state you live in.⁴ In the future, BFR may yield better results as the practice becomes more technologically advanced. However, until then, it is important to keep these scientific facts in mind when making informed decisions about your care.

References:

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