

# Chronic Exertional Compartment Syndrome (CECS) or "Arm Pump"

CECS occurs when increased intramuscular compartment pressure produces severe, sometimes debilitating, pain and neurologic symptoms. Arm Pump in racers is often mis- or un-diagnosed leading to decreased performance, depression, limited engagement in the sport or quitting altogether.

The current standard of care is surgery (fasciotomy) which changes the muscle mechanics, creates scar tissue and doesn't permanently prevent arm pump from returning in a worse way.

MVP Treatment<sup>™</sup> addresses the underlying cause of CECS — functional venous outflow obstruction—by using image guided botulinum toxin injections to effectively treat CECS.



#### **About MVP Treatment™**

McGinley Vascular Pressure Treatment<sup>™</sup> is a patented, minimally-invasive procedure for CECS.

Following a thorough and patented diagnostic evaluation, botulinum toxin is injected using ultrasound guidance into the small segment of muscle that is compressing blood flow. The targeted muscle fibers are locally relaxed allowing blood flow to resume normally.

The patient can walk out of the office immediately after the procedure.

O PHYSICAL THERAPY

30-60

**MINUTES** 

In-office procedure Local anesthesia

Н

**OFFICE VISIT** 

Evaluation and treatment performed on the same day. Fly in and fly out.

2

DAYS

Limited time away from competitive sports—can be fully unrestricted by 21 days post treatment

87%

SUCCESS RATE

With high-level/elite athletes

"Literally increased my workload 300% after treatment...Overall, it's been quite incredible."

JAMES STEARNS, PRO ENDURO RACER

#### **Real results**

- 87% positive response among patients.
- First procedure in 2012 with over 1000 patients treated for either leg or arm CECS.
- Remotely follows each treated patient for up to three years post procedure.
- Peer-reviewed publication (legs) representing 284 patients. Long-term data have been publicly presented in a poster presentation (see QR code) and are pending publication.

### **Complications**

- · Minor risks, outpatient procedure
- Main risk is temporarily (4-7 days) diminished grip strength 2-4 weeks after treatment
- Lower dosing followed by gradual dose-increases helps reduce the rare risk of diminished grip strength
- Overall risks are lower than surgery (standard of care)
- Surgery should be the last resort "do no harm"

#### Post-procedure care

Individual care procedures are included in the patient consultation and treatment plan.

48

**HOURS** 

No exercise (upper or lower body)

DAYS

3-14

Unrestricted

DAYS

14-21

Monitor activity for weakness and reduce intensity

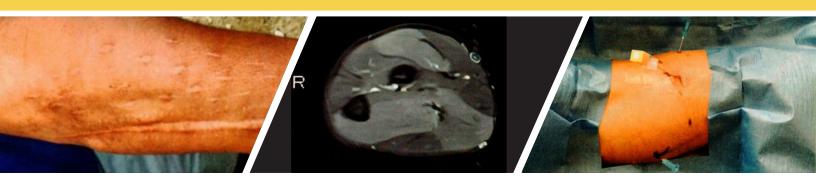
DAYS

22+

If asymptomatic without weakness, no restrictions



View poster publication



Traditional arm pump surgery scars.

MRI shows swelling in the forearm muscles (bright areas).

MVP's less invasive targeting using very small needles.



## About Dr. McGinley

Joseph C. McGinley, MD, PhD is a musculoskeletal interventionalist and mechanical engineer. His practice, The McGinley Clinic, is located in Casper, WY. His personal journey with "arm pump" from amateur motocross and professional adventure racing led him to develop, patent and offer the McGinley Vascular Pressure Treatment™. At The McGinley Clinic, he has provided non-surgical relief of arm pump for almost 10 years. He has been interviewed by CBS, NBC, Inside Enduro, Motocross Action and Dirt Bike magazines. www.themcginleyclinic.com