- Who uses app
    - Coaches, Physical therapists, doctors
- Used for resistance exercise and aerobic exercise
- Can substitute heavy weight exercise with light weights and BFR, has same effect
- Generally one cuff on a limb, or two cuffs on arms or legs (not both at the same time)
- Could increase risk of
    - Blood clots
    - Cardiovascular events
    - Muscle damage
- To utilize bfr safely
    - Screen people who may be at high risk
    - Implement in a way that minimizes risk
- AOP -Arterial Occlusion pressure - minimum pressure needed to complete restrict arterial blood flow
    - In the exercise, use a percent of AOP
    - Use doppler ultrasound at artery to locate pulse and inflate until no pulse to get AOP
    - Start low, and increase until blood flow stops, then deflate from there
    - AOP can fluctuate day to day, want to do ultrasound procedure every time
    - Cuff size and circumference of limb
    - Systems
        - Automatic autoregulated - calculates AOP and maintains pressure with movement
        - Automatic - measures AOP
        - Manual - doesn't measure AOP
    - AOP Estimation - uses blood pressure and circumference of limb
        - AOP = systolic blood pressure + thigh circumference - specific to cuff
            - Developed through linear prediction analysis
    - Knee wraps/ elastic bands
        - Difficult to individualize pressure
        - Relies on perceived tightness
    - AOP = LOP

- The app
    - Steps
        - Medical Screening - should bfr be used?
        - Selecting technology - whats safest based on medical background, based on assessed risk
            - Moderate risk - automated system
                - Link to system pages
            - Low risk - manual pneumatic cuff
                - Pressure to use in cuff w/ prediction equations
            - Very low risk - elastic wraps
                - instructions

        - Setting pressure
            - 80% AOP is highest recommended for exercise
            - Better to start low
            - Max time typically 20 minutes
    - Exercise prescription - extra feature