

App Description – BFR Team

App Idea:

The purpose of this application is to provide a well thought out and easy way to conduct blood flow resistance (BFR) training for a wide range of users. Using blood pressure, age, sex, thigh or arm circumference, number of BFR training experiences, and the equipment readily available, a user will be able to determine the amount of pressure to be given (a percentage of the AOP if using a cuff) for this training.

Users:

The intended users of this application include but not limited to:

- Personal trainers
- Athletic coaches
- Physical Therapists

Workflow:

1. A user will be welcomed to the website and a link to a page explaining BFR will be provided
2. The user will be prompted to take a medical screening form
3. Depending on the risk level based on their response to the screening, they will be given the equipment deemed safe to use, if not safe to use or there is no medical clearance given for this training and there is a high risk, go to **5**
4. Based on the equipment the user selects there will be directions on how to apply
 - a. for wraps: will show how tightly to wrap the limb, either perceived tightness (from data given by Mr. Wedig) or measured using specifically elastic knee wraps, either 25 or 30% of the circumference of the arm and leg respectively
 - b. for manual pneumatic cuffs: will prompt the user to enter the blood pressure, age, sex, thigh or arm circumference of the patient and will be given the AOP and thus percentages of the number to calculate how tight the cuff will be
 - c. for automated or autoregulated cuffs: will give links the user can click on relating to the corresponding product to explain how to use
5. The user will be told why this training is not safe

Views:

- Welcome Page
- Medical Screening
- Why the equipment is not safe to use (if necessary)
- Is medical clearance given (if risk level 4)
- Equipment selection

- 3 various instruction pages for said equipment

Data:

The following list will be the data we as a team intend to use for this project which is subject to change:

- Equations provided by Mr. Wedig
- Photos of each type of cuff used during this form of training
- Websites for each cuff to explain usage of said cuff (if one is readily available)
- Medical screening test provided by Mr. Wedig

Anticipated Challenges:

Below are the anticipated challenges that we may encounter on this project:

- Design of initial layout
- If the medical professional should take the screening for the patient