## **Isometric Exercises**

*Isometric exercise* – a muscle contraction where the muscle works against a force (usually gravity) but does not noticeably change in length. Examples of isometric exercises include planks and wall sits, as well as pulling against an immovable force, such as trying to pick up a car.

Isometric exercises can be valuable when equipment is limited, when joint range of motion is limited due to injury, or to add variety to an exercise program. Isometric exercises only strengthen the muscle within the same range as the contraction so it is important to vary the angle in your isometric exercise. For example, you can do your wall sit at 90 degrees, but also at 100 degrees and 110 degrees. Isometric exercises where you hold the position for a long time will build muscular endurance, whereas as exercises where you are pulling/pushing against an immovable object will build strength.

For endurance exercises you can hold the contractions until you fatigue, making sure to maintain good form. For strength exercises, you want to push/pull as hard as you can for 5-10s/rep, and repeat for 5 reps.

Here are some example of isometric exercises you can try:

Glute Bridge – vary the height of your feet to add variety to the angle.

Front, Side and Reverse Planks – vary the height of your elbow or feet to add variety to the angle

Push up – at various angles of your push up you can hold the contraction. Or, you can get a partner to push down between your shoulder blades so that you aren't able to push up.

Rows – Tie a rope to an immovable object. Pull against the rope in a rowing motion. Perform with your arm at various angles.

Shoulders – Hold a dowel overhead and try to pull it apart. Repeat at a variety of arm angles.

Find more exercises here:

https://www.vertimax.com/blog/top-20-isometric-exercises-for-static-strength-training



1. Posing/flexing is an example of an isometric contraction