

Warm-Up Training Concepts

1. Components of a Workout

- i) Warm-up
- ii) Resistance Training
- iii) Cardiovascular Training
- iv) Flexibility Training

2. The FITT Training Formula

- F= Frequency**
- I= Intensity**
- T= Time**
- T= Type**

3. The Benefits of an Effective Warm Up:

Every individual regardless of age and fitness level needs a proper warm up before beginning the more strenuous component of the workout. Physiologically and psychologically a good warm up is essential to workout success.

4. Physiological Benefits:

Benefit	Rationale
Gradual increase in muscle temperature.	Reduces the chance of injury to muscles and joints. Increase exercise muscle contractile strength and contraction speed.
Increase in neural transmission and motor unit recruitment.	Warms up the nerve impulses so that once strenuous exercise begins they travel faster. This gives better contractile strength and speed as well as better coordination.
Allows the body time to adjust blood flow.	With a gradual need for increased oxygen, the circulatory system has time for vasodilation of Blood vessels to muscle and vasoconstriction of abdominal blood vessels.
Prevents the early onset of fatigue.	Allows the body time to gear up and deliver more oxygen to working muscles at a moderate pace. This reduces the early accumulation of Lactic Acid which would negatively affect the remainder of the workout.
Allows the gradual increase in oxygen requirements.	The increase in demand to the body from rest to exercise is slow and moderate to reduce the stress on the cardiovascular system. Oxygen delivery and extraction is improve and overall physical performance is enhanced.

5. Psychological Benefits:

Benefit	Rationale
Allows the individual time to prepare mentally for the workout.	The individual can take the time to focus on the upcoming workout and forget about the stress of the day.

6. Signs of an Effective Workout:

Gradual increase in:	Heart Rate Blood Pressure Breathing Rate Body Temperature
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7. Effective Warm Up Design:

- F** Before every workout.
- I** Resting heart rate should be elevated to an RPE that is “moderate” on the Borg Scale.
- T** At least 5 minutes of gradual activity and 7 to 10 minutes for beginners and seniors.
- T** General Warm up includes continuous, rhythmic and large range of motion movements.