

Chapter 7

Cardiovascular Fitness



Cardiovascular fitness is
said to be the **most**
important of all the physical
fitness components.



Cardiovascular Fitness

is the ability of the heart and lungs to provide oxygen to muscles as work is performed over an extended period of time.



Pulse

is caused by pressure of the blood on the artery wall, and it corresponds to your heartbeat.



Pulse

The best locations for measuring your pulse are: the **carotid artery of the neck** and the **radial artery of the wrist**.



Resting Heart Rate



Your resting heart rate should be taken **just after waking up in the morning and before getting out of bed.**

Recovery Heart Rate

Your recovery heart rate is
your heart rate **just after**
exercise.

Recovery Heart Rate

Your heart rate should drop to about 120 beats per minute within five minutes after a workout and be less than 100 beats per minute after ten minutes.

Benefits

Of Cardiovascular Exercise



Benefits

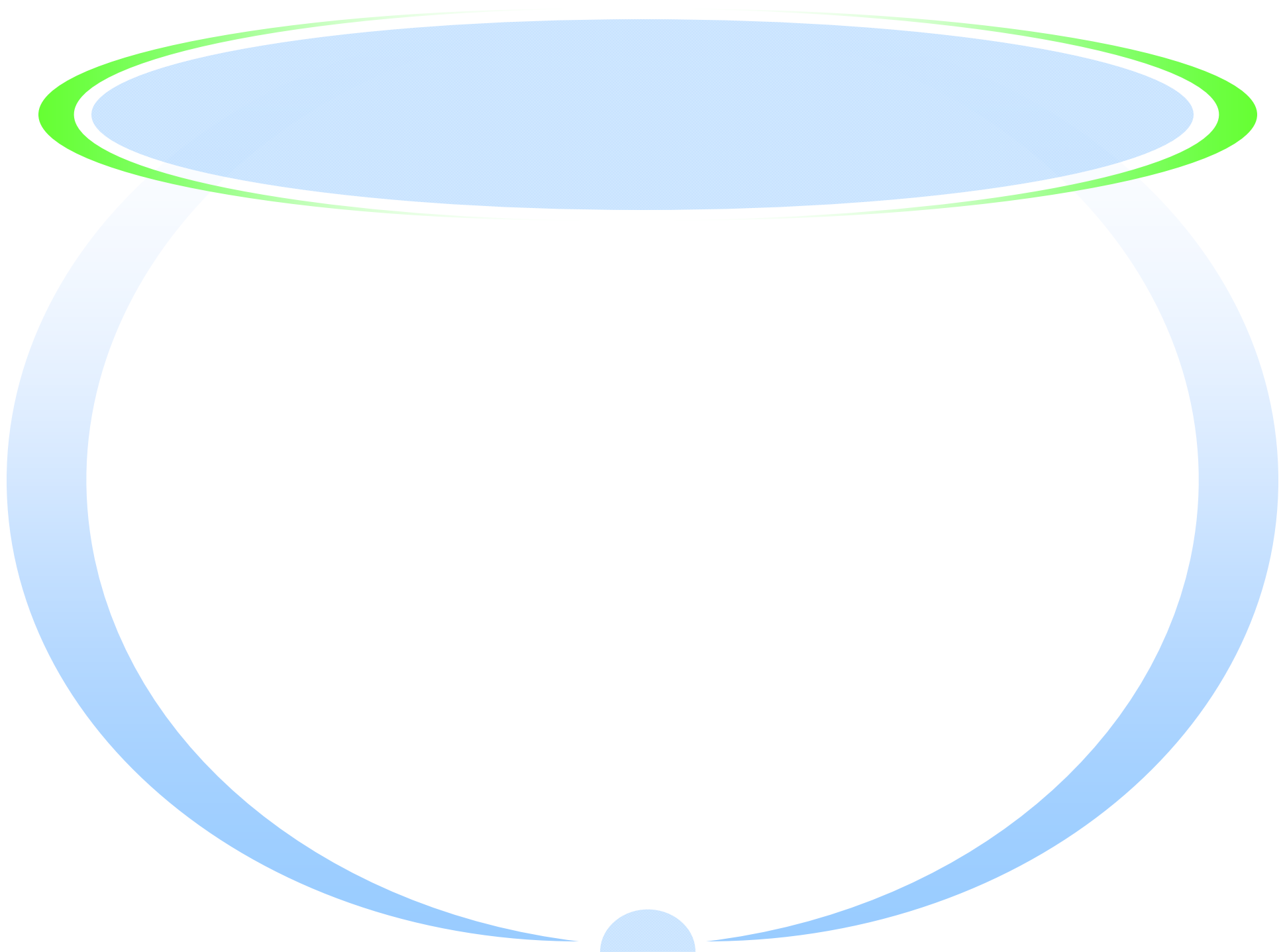
- ✓ It will strengthen the heart.
- ✓ Active people are less prone to heart disease.
- ✓ Your muscles receive more oxygen and do not tire as easily.

Benefits

- ✓ Your heart works more efficiently because it is able to pump out more blood with each beat.
- ✓ You obtain mental benefits such as improved concentration, ability to cope with stress, and self-concept.

Fitness Tests

- ✓ Mile Run
- ✓ Step Test
- ✓ 12 min Walk/ Run
- ✓ Pacer

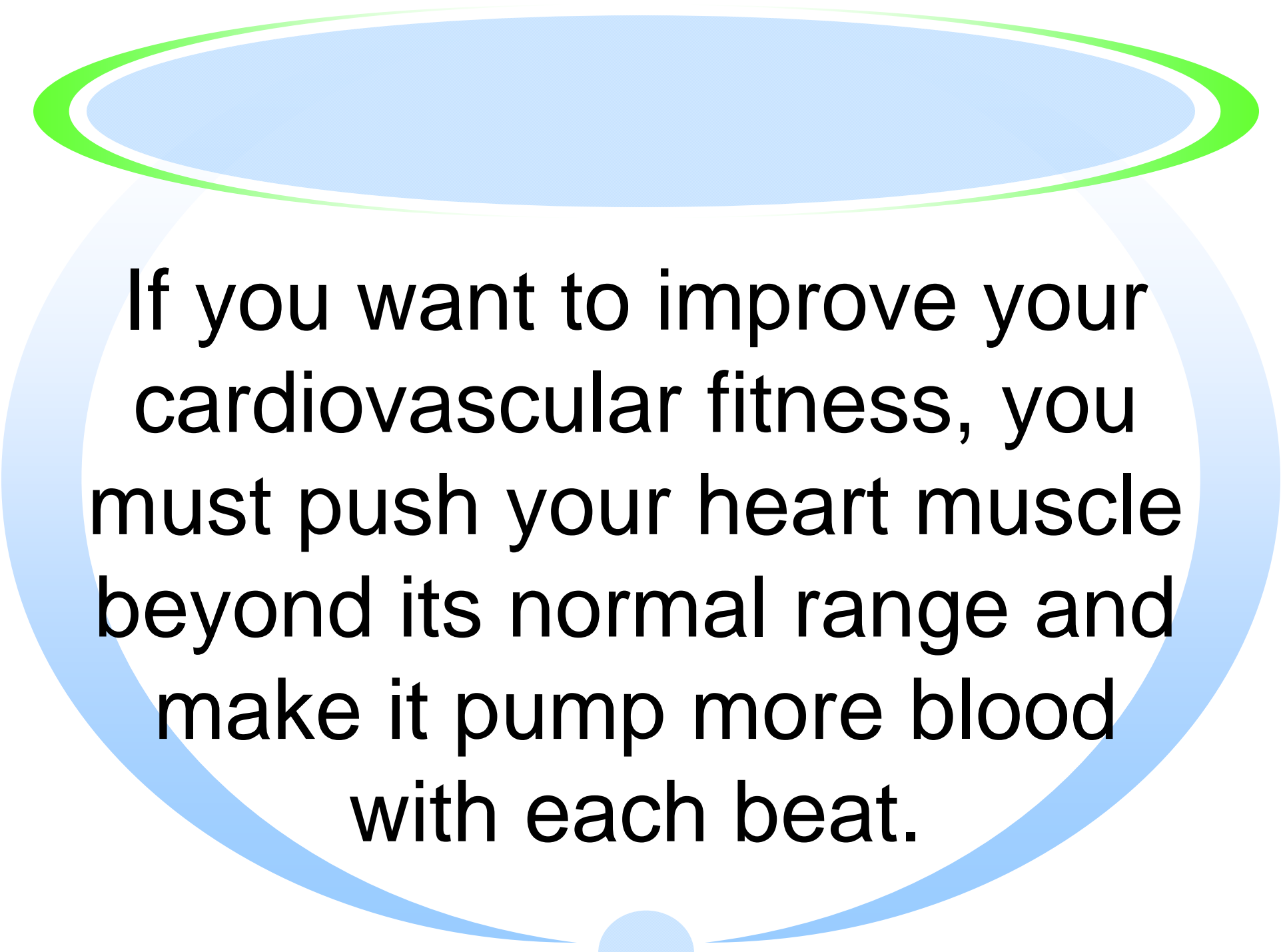




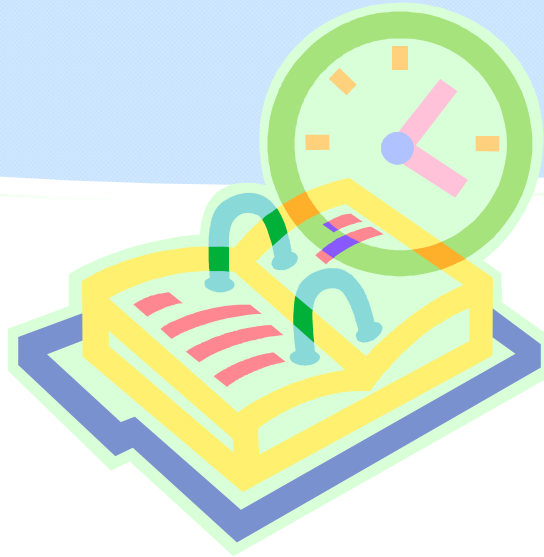
Training Principles Applied to Cardiovascular Fitness



Principle of Overload




If you want to improve your cardiovascular fitness, you must push your heart muscle beyond its normal range and make it pump more blood with each beat.



Frequency



Aerobic activities must be performed at least 3 times per week to reach an adequate level of cardiovascular fitness.



Intensity

Target Heart Rate Zone

(THRZ)

60%-90% of
Max Heart Rate(MHR).

Maximum Heart Rate (MHR)

is the heart rate that should not be exceeded during exercise and is calculated by subtracting your age from 220.

$$220 - \text{Age} = \text{MHR}$$

MHR

$$220-15=205$$

$$220-16=204$$

$$220-17=203$$

THRZ

60% or .60

$$205 \times .60 = 123$$

$$204 \times .60 = 122$$

$$203 \times .60 = 122$$

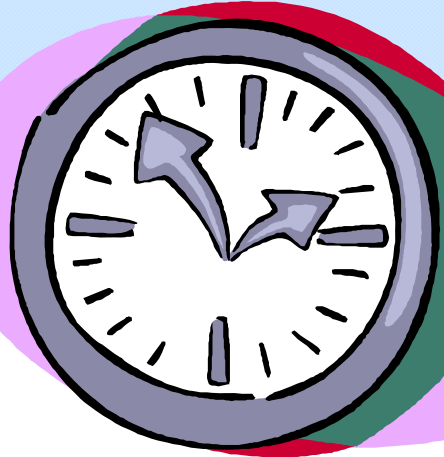
THRZ

90% or .90

$$205 \times .90 = 185$$

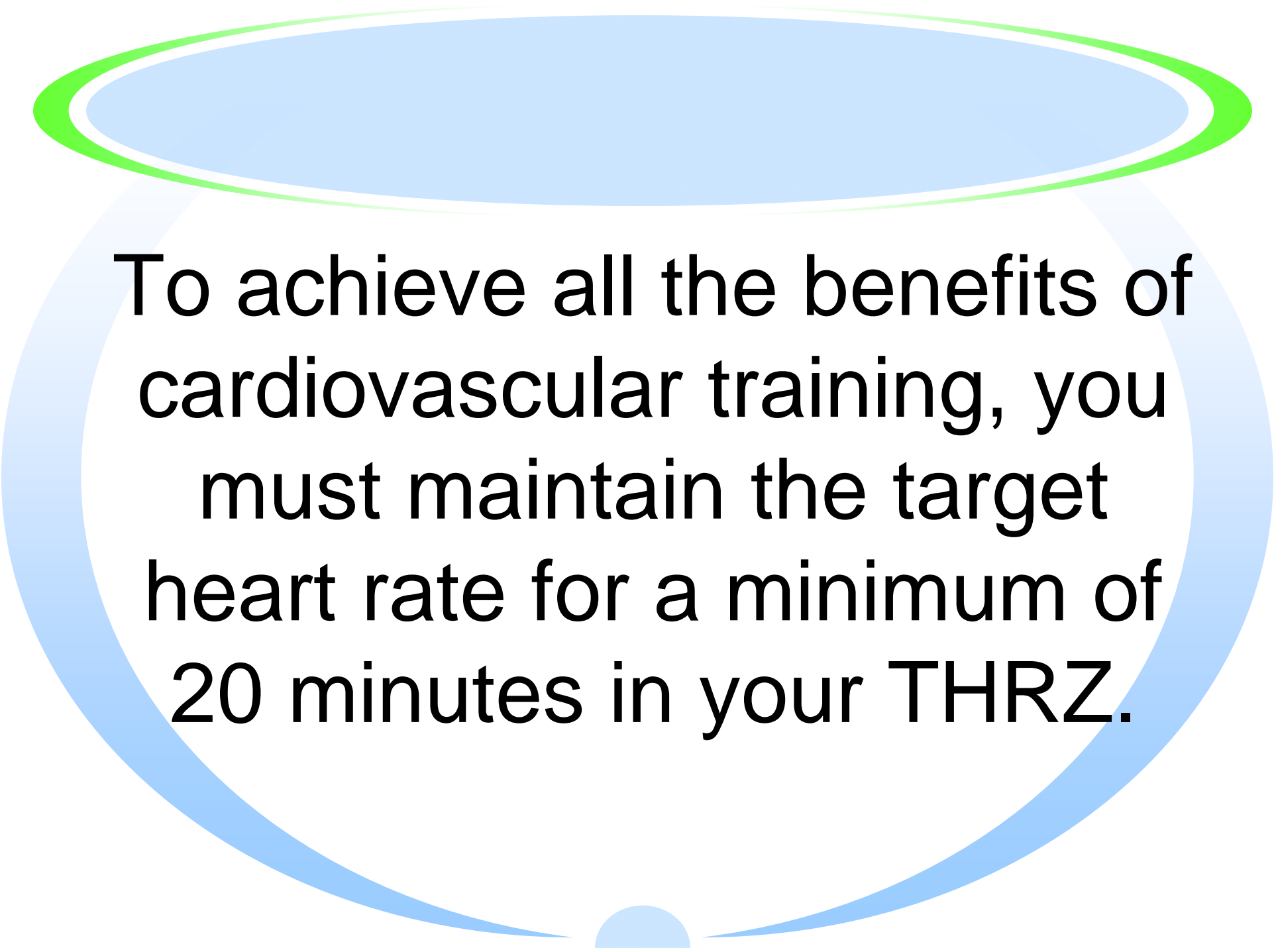
$$204 \times .90 = 184$$

$$203 \times .90 = 183$$



Time

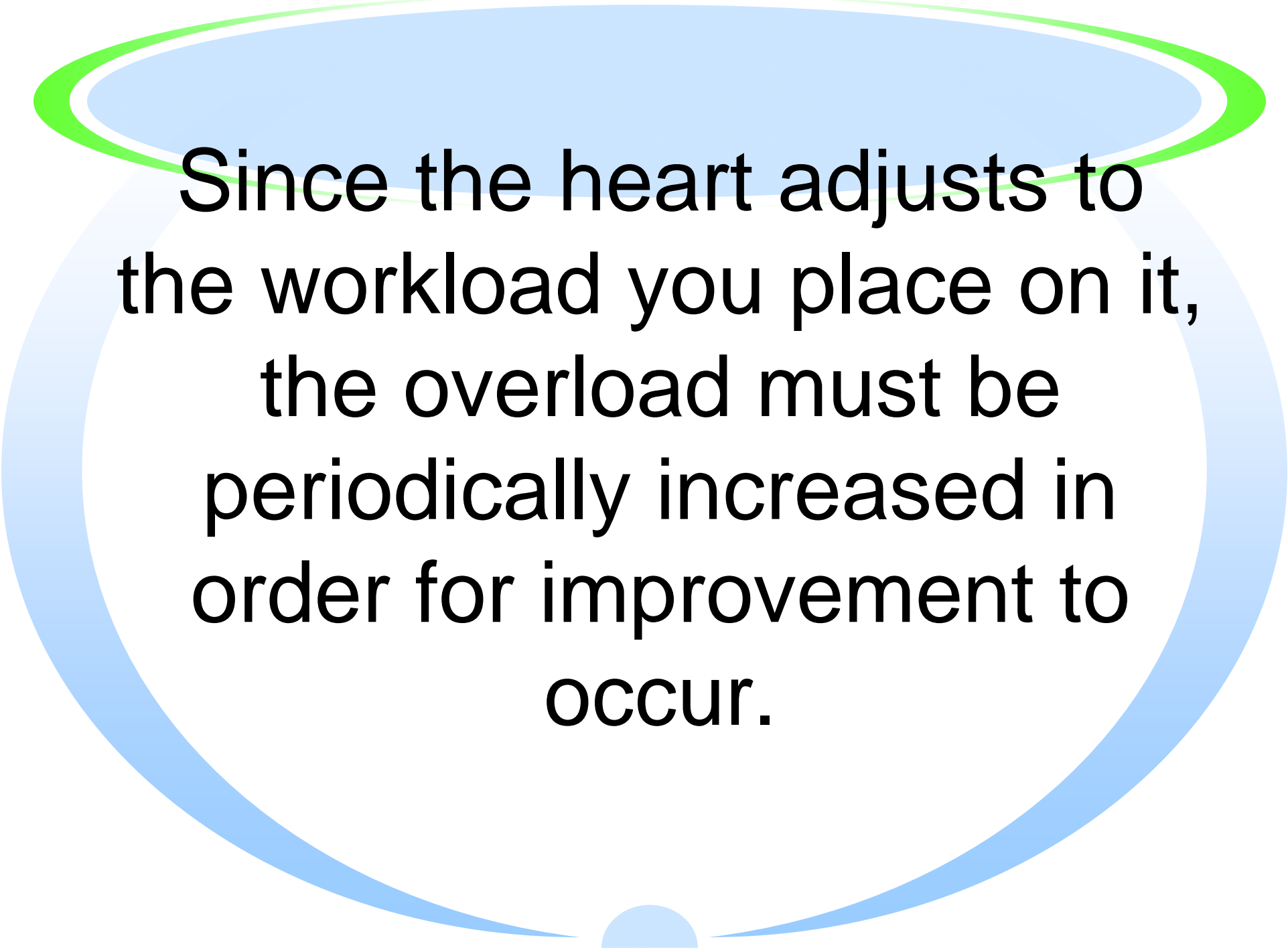




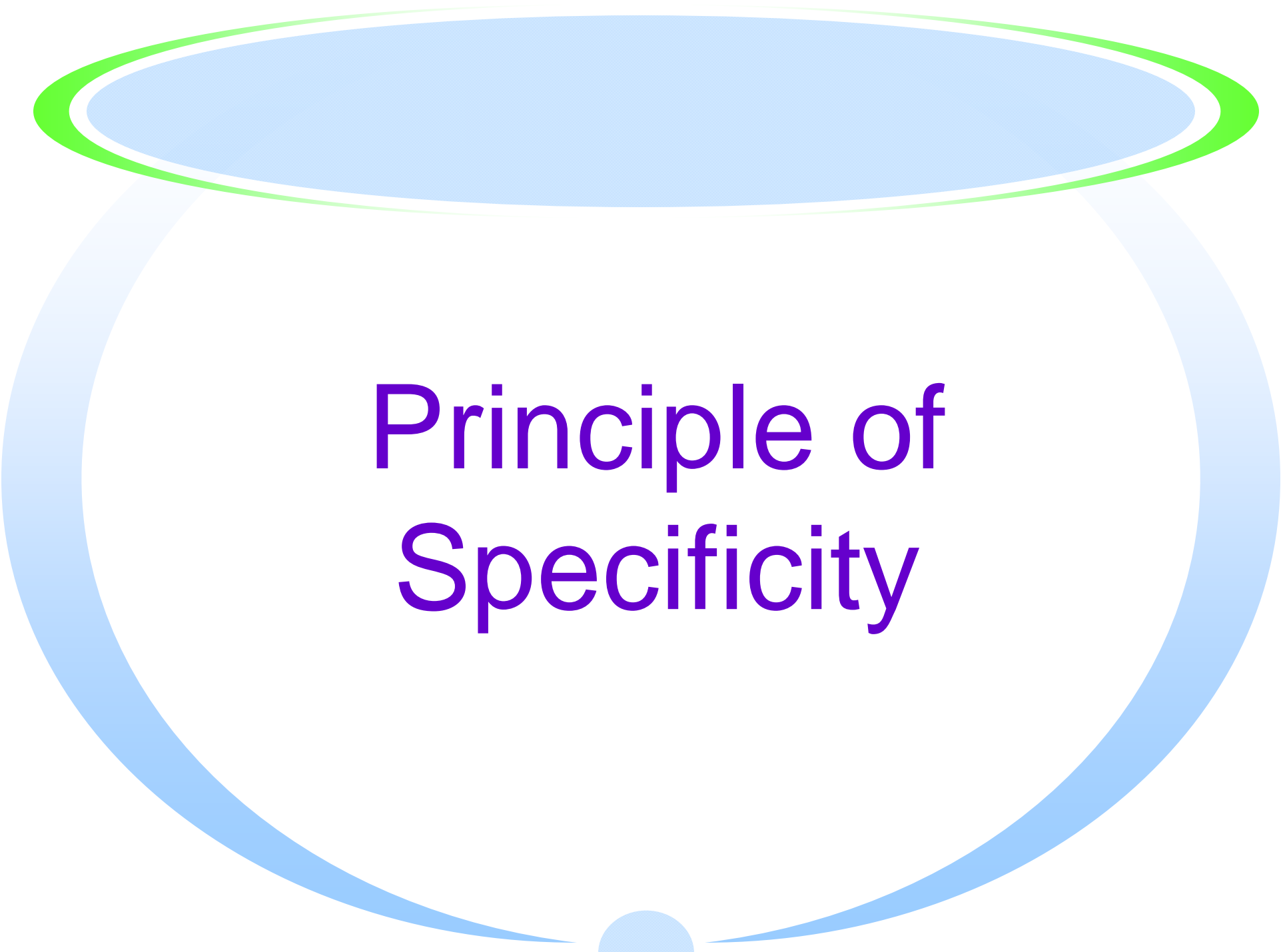
To achieve all the benefits of cardiovascular training, you must maintain the target heart rate for a minimum of 20 minutes in your THRZ.



Principle of Progression



Since the heart adjusts to the workload you place on it, the overload must be periodically increased in order for improvement to occur.



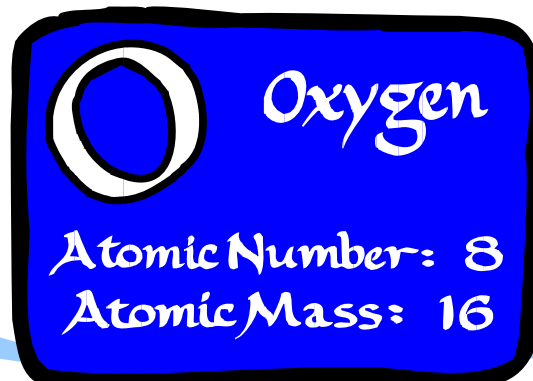
Principle of Specificity

Aerobic exercise

promotes cardiovascular
fitness better than any
other type of activity.

Aerobic exercise

- means **with oxygen** and involves activities that can be performed for at least 15 minutes without gasping to catch your breath.



Anaerobic exercise

- means **without oxygen** and involves activities that are performed at a pace which uses oxygen faster than the body can replenish it.