


Components of a workout

- Warm-Up
- Conditioning
- Cool-Down





Components of a workout

- Warm-Up
 - ✓ 5-15 minutes
 - ✓ Increases body temperature, heart rate and respiration
 - ✓ Dynamic movements
 - ✓ Static stretching (not for flexibility)




Components of a workout

- Conditioning
 - ✓ 20-30 minutes
 - ✓ Goal specific



Components of a workout

- Cool-Down
 - ✓ 5-15 minutes
 - ✓ Ease back into resting
 - ✓ Prevent blood pooling
 - ✓ Static stretching for flexibility



FITT Formula

- **F**requency
How often?
- **I**ntensity
How hard?
- **T**ime
How long?
- **T**ype
What activity?



FITT Formula Example

- **F**requency
5 times a week
- **I**ntensity
65 % Max HR / 11-13 RPE
- **T**ime
60 minutes
- **T**ype
Jogging



Does This Make Sense?

**Take Every Opportunity to
"Kick it Up a Notch!"**



Training Principles



Specificity

Specificity: or SAID principle
"Specific Adaptations to Imposed Demands" or in other words, **What you do is what you get.**



Overload

Overload: place a demand on the body greater than it is accustomed to. The body's structures and functions respond and adapt to this demand.

- **Quantity**
training volume = frequency X duration
- **Quality**
training intensity



Adaptation

Adaptation: change in physiological function that occurs in response to training during periods of rest and recovery.

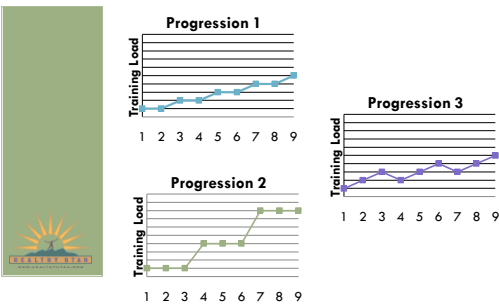


Progression

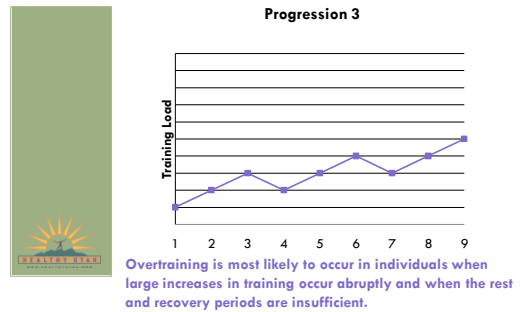
Progression: connected to overload. Training loads should be small, controlled and flexible. Progression occurs with continued overload and adaptation.



Which Pattern of Progression is best?



Which Pattern of Progression is best?



Progressive Overload

Gradual increase of load = gradual adaptation, which prevents overtraining, excess soreness & injury!



How do I progress?



Take the next challenge

"If you have a great ambition, take as big a step as possible in the direction of fulfilling it. The step may only be a tiny one, but trust that it might be the largest one possible for now"

~Mildred McAfee



Take the next challenge

If you do not **challenge** your current state of ability you will only **maintain** what you currently have.



FITT Formula

- **F**requency
Add no more than one day per week
- **I**ntensity
Increase by no more than 10%
- **T**ime
Increase by no more than 10%
- **T**ype
May need to decrease other components



Progression



One **FITT** factor at a time



Prevent Plateaus

- ✓ Too much time spent doing the same type of workout using the same equipment in the same environment can lead to a plateau.
- ✓ A plateau may be an early warning signal of overtraining.

The Answer: **Variety and Rest**



Prevent Reversibility

- ✓ Changes occurring with exercise are reversible
- ✓ Loss may begin within 48 hours of inactivity
- ✓ Greatest benefits retained by maintaining **intensity**

Ex: If a person had to travel for 2 weeks and was unable to get in their 30-minute run 5 days a week, dropping to 20-minute or 3 days a week while maintaining target heart rate or RPE will best help maintain current fitness level.



Up a Notch

Cardiorespiratory Training

Physical Activity Guidelines for Americans

- ✓ 300 minutes (5 hrs) per week of moderate intensity, or 150 minutes (2.5 hrs) a week of vigorous activity, or an equivalent combination of both.

60-90 minutes of moderate activity

- ✓ Most effective amount of time to lose weight and maintain it!

Additional benefits beyond this point!



Up a Notch

Moderate Activity:

- ✓ Equivalent in effort to brisk walking
- ✓ Ex: Walking briskly (3mph or faster), water aerobics, biking (less than 10mph), doubles tennis, general gardening.

Vigorous Activity:

- ✓ Equivalent in effort to running or jogging
- ✓ Ex: Racewalking, jogging or running, swimming laps, singles tennis, biking (10mph or faster), jumping rope, hiking uphill with a heavy backpack.



Up a Notch

Cross Training

- ✓ Adds variety
- ✓ Increases benefits
- ✓ Prevents overtraining
- ✓ Balanced fitness



Up a Notch

Interval Training

- ✓ Bursts of higher intensity exercise combined with moderate intensity recovery periods.
- ✓ Helps raise current ceiling or threshold
- ✓ Effective method for fitness, speed training, weight loss, etc.



Up a Notch

Interval Training

- ✓ Ratio Variations:
 - ✓ 5-1, 2-1, 1-1, 1-2, 1-5, etc.
- ✓ Method:
 - ✓ HR
 - ✓ Speed
 - ✓ Grade/Resistance



Strength Training: Up a Notch

Physical Activity Guidelines for Americans

- ✓ Moderate or high intensity and involve all major muscle groups on 2 or more days a week.
 - ✓ Endurance – 12-15 repetitions
 - ✓ Strength – 8-12 repetitions

Your last repetition should be difficult to do without help!




Tools For Gauging Intensity





Rate of Perceived Exertion (RPE)

RPE SCALE	
6	no exertion at all
7	very, very light
8	
9	very light
10	
11	fairly light
12	
13	somewhat hard
14	
15	hard
16	
17	very hard
18	
19	very, very hard
20	maximal Exertion




RPE and your Heart Rate

RPE SCALE	Heart Rate	
6	no exertion at all	60 bpm
7	very, very light	70 bpm
8		80 bpm
9	very light	90 bpm
10		100 bpm
11	fairly light	110 bpm
12		120 bpm
13	somewhat hard	130 bpm
14		140 bpm
15	hard	150 bpm
16		160 bpm
17	very hard	170 bpm
18		180 bpm
19	very, very hard	190 bpm
20	maximal Exertion	200 bpm




How does it relate?




RPE Zones


RPE SCALE	
6	no exertion at all
7	very, very light
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15	hard
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ENDURANCE TRAINING ZONE




STRENGTH TRAINING ZONE




RPE Zones

RPE SCALE	
11	fairly light
12	
13	somewhat hard




ENDURANCE TRAINING ZONE

- ✓ Cardiorespiratory Endurance Training 3-5 times per week
- ✓ 55% - 65% of Max Heart Rate
- ✓ Muscle Endurance Training 1-2 times per week
- ✓ 20% - 40% of 1RM




RPE Zones

RPE SCALE	
15	hard
16	
17	very hard



STRENGTH TRAINING ZONE

- ✓ Cardiorespiratory Strength Training 3-5 times per week
- ✓ 75% - 85% of Max Heart Rate
- ✓ Muscle Strength Training 1-2 times per week
- ✓ 60% - 80% of 1RM



Optimize Your Workout

VO2 Max

- ✓ Maximum level of aerobic power or the maximum amount of oxygen that you are able to utilize during exercise by working muscles.
- ✓ The higher your VO2 max the greater your potential in aerobic endurance activities.
- ✓ The test involves walking, running or cycling until exhausting therefore is not appropriate for everyone.
- ✓ Sub max tests can estimate VO2 max with less risk to the participant.



Optimize Your Workout

VO2 Max Benefits

- ✓ Accurate measure of cardiorespiratory fitness
- ✓ Provides information to take training "Up a Notch"
 - ✓ Max Heart Rate
 - ✓ VO2 Max
 - ✓ Ventilatory Threshold



Optimize Your Workout

Improving VO2 Max

- ✓ Emphasize quality rather than quantity of your training.
- ✓ High-intensity training 1-2 days/wk have been shown to increase VO2 max.
- ✓ Intervals very effective
- ✓ Include longer less intense workouts in between for recovery.



Optimize Your Workout

Improving Ventilatory Threshold

- ✓ Based on overload principle
- ✓ Studies show that long, intense workouts as well as interval training can raise your threshold.
- ✓ Beginners have shown change by training at 80% VO2 max (correlated HR).



Optimize Your Workout

1 Rep Max (1RM)

- ✓ Maximum amount of resistance you can move a given number of times. 1RM = maximum weight lifted one time.
- ✓ Estimate 1RM – not as accurate but safer for certain people
- ✓ Allows for specific training at percentages of 1RM.



Kick It Up a Notch

- ✓ Progressively Overload
 - ✓ FITT Formula
- ✓ Incorporate Training Variations
 - ✓ Cross Training
 - ✓ Interval Training
 - ✓ New Activities
- ✓ Optimize Your Workout
 - ✓ Gain knowledge to make your workouts more efficient and effective.





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KICK IT UP A NOTCH!

QUESTIONS?