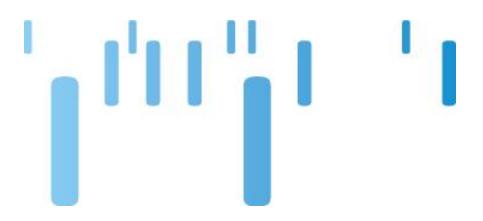
lyondellbasell

Exercise – Basic Principles







"Physical fitness is not only one of the most important keys to a healthy body, it is the basis of dynamic and creative intellectual activity."

-John F. Kennedy



Types of Exercise and Basic Recommendations

Cardio (aerobic)

Strength (anaerobic)

Flexibility

- 150 minutes of moderate intensity exercise per week
- 75 minutes of vigorous intensity exercise per week
- 3-5 days per week

- Train each muscle group 2-3 days a week
- 48 hours between sessions
- 2-4 sets of 6-15 reps
- More reps = less weight

- Flexibility exercises 2-3 days per week
- 10-30 seconds per stretch
- Dynamic (movement)
 Stretching is better for injury prevention

Gradually increase intensity of exercise to prevent injury and increase gains



Cardio Training

There are different varieties of cardio training (aerobic), most people think of running or walking, but that is not the only style and there is more than one way to do it.

- Walking
- Jogging
- Running
- Swimming
- Cycling
- Aerobics classes









Different Methods for Cardio Training

Cardio exercise can be performed in several different ways:

- Endurance: Long distances for long periods of time
- Interval: Changing speeds and durations during the bout of exercise (planned and timed)
 - Example: Running for 2 min @ 5MPH pace and then walk for 30 sec
- Fartlek: Random changes in pace during bout (spontaneous and unplanned)
 - Example: Sprint to the end of the street as fast as you can and then jog for a little while and then sprint again – based on how you feel with less emphasis on time and pace





 Pace/Tempo: Running specific speeds and tempos with the intent on improving race times (training for racing, swimming or cycling events)

All of these types of cardio training methods can be used for cycling, running and swimming.

*** If your goal is to lose weight; interval and fartlek training is the best method!! ***



Strength Training Exercise

Strength training (anaerobic) exercise is a great way to build strength, bone density, muscle mass and gain flexibility. There are several methods for strength training:

- Weightlifting
- Pilates
- Plyometrics









Methods for Strength Training

There are several methods of strength training:

- TBW: Total Body Weight, Pilates and plyometrics, increase strength and endurance
 - Example: pushups, box jumps, burpees
- Powerlifting: Olympic style movements with heavy weights and lower volume, builds strength and power
 - Example: Clean and jerk, bench press, deadlift
- Bodybuilding: exercises that target a specific muscle, lighter weight with greater volume, builds strength and size
 - Example: biceps curls, triceps extension, rows



Methods for Strength Training

There are several methods of strength training:

- Circuit Training: a style of strength training combined with endurance
 - Example: stations with different exercises performed in succession; usually with body weight exercises
- HIIT: High Intensity Interval Training combining strength with cardio primarily for fat loss while building strength
 - > Example: similar to circuit training with weights at higher intensity

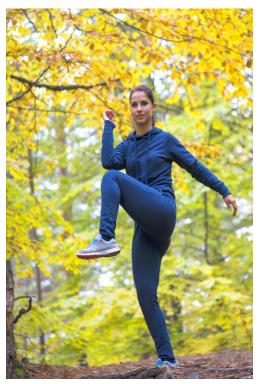
*** It is recommended that older individuals focus on strength training because of the muscle building and bone density increasing properties!! ***



Flexibility Training

Flexibility exercises are great for preventing injury and improving joint structure. There are different methods of practicing flexibility exercises:

- Yoga (also strength)
- Calisthenics
- Static-still
- Dynamic-moving











There are several methods to achieve flexibility:

- Static: stretch and hold; touching toes
- Dynamic: range of motion movement; leg swing
- Ballistic: pushing body part past its limits (can lead to injury if not properly warmed up)
- Passive: holding a stretch with a body part; arm across chest



Before You Start

It is important to always stay safe when exercising. We can easily push ourselves past our limits or "over do it". Here are some tips to remember when exercising:

- 1. Consult with your physician before starting any new exercise program
- Always where clothing appropriate for the exercise to allow proper range of motion and support
- Properly warm up and cool down to help prevent injury and promote recovery -5-10 minutes of movement to get the blood flowing to the body parts being targeted before and stretching afterwards
- Be aware of your surroundings when exercising and use a spotter when lifting weights
- 5. NEVER STATIC STRETCH COLD this will lead to injury
- 6. Do your homework. read up on the exercise program you want to try or consult with a personal trainer before you start. This site has some great examples of cardio (aerobic) and strength (anaerobic) exercises and their benefits
- Stay Hydrated
- 8. Give Yourself a Break do not do the same exercises day after day
- Make Sure You Eat food is fuel, do not exercise without energy





- Cardio increase fat loss more than strength
 FALSE
- Cardio training decreases heart rate at work and at rest
 TRUE
- Cardio is cheaper and requires less equipment
 FALSE
- Women will get big and bulky from strength training FALSE



Sources of Information and Resources for Help

Resources:

- This <u>site</u> has some great examples of cardio (aerobic) and strength (anaerobic) exercises and their benefits
- Muscle and Strength Magazine has over 1000 free workout programs
- Runners World provides various running related information

Source Information:

- Acsm.org
- Essentials of Strength Training and Conditioning, 3rd Edition, (NSCA)
- Functional Training for Sports, Boyle

EXERCISE BASICS

It's in your hands! Start *TODAY*.



