

COMPONENTS OF A CONDITIONING PROGRAM

WARM UP and COOL DOWN

Warming up and cooling down are very important parts of the exercise routine. There are physical and psychological benefits to both these components that can be as simple as a slow walk before and after your exercise program.

Benefits of warming up

- Increases the temperature in the muscles, which increases the speed of contraction and relaxation.
- Reduces premature lactic acid build up and fatigue during high level exercises.
- Increases speed of nerve impulse conduction.
- Increases elasticity of connective tissues
- Increases muscle metabolism and oxygen consumption that enhances aerobic performance.
- Alert for potential muscle injury that may arise during higher intensities.
- Increases endorphins.
- Allows the heart rate to get to a workable rate for beginning exercise.
- Increases production of synovial fluid located between the joints to reduce friction.
- Psychological warm up to mentally focus on training and competition.

Benefits of cooling down

- Prevents venous blood pooling at the extremities, which reduces chance of dizziness or fainting.
- Reduces the potential for Delayed Onset Muscle Soreness (DOMS).
- Aids in removing waste products in muscles, such as lactic acid.
- Reduces the level of adrenaline and other exercise hormones in the blood to lower the chance of post-exercise disturbances in cardiac rhythm.
- Allows the heart to return back safely to resting rate.

Start out every routine with a warm up first. Here are some suggestions

- Walking or outside
- Running up and down some stairs
- Jumping jacks
- Running in place
- Dynamic stretching

Equipment

- Treadmill
- Stationary or Recumbent bike
- Stair climber or Elliptical
- Mini trampoline

LOST TEMPLE FITNESS

Duration, Frequency, Intensity and Movement Patterns

Intensity:

How *much* mental and physical *effort* it takes to sustain an activity.

This can be done using the target heart rate range THR (optimum exercise intensity levels through beats per minute, talk test or rate of perceived exertion).

Duration:

How *long* the training lasts.

The higher the intensity, the shorter the duration. The American College of Sports Medicine guidelines recommends all healthy adults aged 18–65 yr should participate in moderate intensity aerobic physical activity for a minimum of 30 min on five days per week, or vigorous intensity aerobic activity for a minimum of 20 min on three days per week.

Frequency:

How *often* the training occurs.

Training should be performed at least every other day or three days a week. Cardiac/aerobic conditioning can be done daily, although you may want to vary exercises. Regarding strength training, it is important to give each muscle group 48 hours to recover. Alternate upper and lower body with isolated abdomen/core exercises every other day. For those working out several days a week, find a schedule that works for you as long as you give each muscle group 48 hours of recovery time.

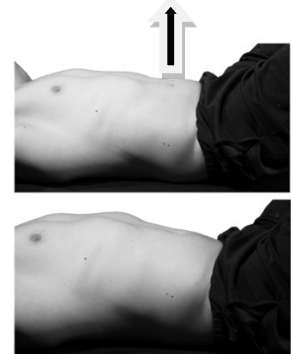
Movement Patterns and Examples

Basic movements that help to increase overall body strengthening

- Bend and Lift: Squats, Dead Lifts and Leg presses
 - Picking up item off floor
- Single Leg: Step ups, Single leg stance, Lunges
 - Walking up steps
- Push: Shoulder press, Bench press, Push up
 - Pushing Shopping cart or Lawn mower
- Pull: Lat pull downs, Seated rows
 - Vacuuming, Raking
- Rotational
 - Shoveling snow

Diaphragmatic Breathing

- Lie either on your back with your knees bent or sit up
- Inhale through your nose; as you do so, allow your stomach to rise. Limit movement in your chest. Attempt to push your bottom ribs out to the side as you breathe in.
- Exhale through your mouth; as you do so, allow your stomach to fall. Limit movement in your chest.
- Repeat for at least 10 cycles.



Pursed Lip Breathing

(PLB) is a breathing technique that consists of inhaling through the nose with the mouth closed and then exhaling through tightly pressed (pursed) lips. This technique is frequently in those with cardiac or respiratory issues. *“Smell the Roses then Blow Out the Candle”.*

Breathing with Exercise

Exhale on the exertion. For example exhale when you are lying on your back and pushing a weight up or when bending your arm doing a bicep curl,. Inhale as you bring the weight slowly to your chest or when you straighten your arm with a bicep curl..

LOST TEMPLE FITNESS

References

Also, Some Good Books, Websites & DVD'

ACE Fitness Nutrition Manual - *American Council on Exercise* (2013)

ACE Idea Fitness Journal: *Martina M. Cartwright, PhD, RD* http://www.idealife.com/fitness-library/protein-today-are-consumers-getting-too-much-of-a-good-thing?ACE_ACCESS=ebec6bcf61abff08f7b1d8b27c555758

ACE Senior Fitness Manual, *American Council on Exercise* (2014)

American Physical Therapy Association, (APTA), 2007. *Basic Science for Animal Physical Therapy: Canine*, 2nd edition

Amino Acids (Wikipedia) - http://en.wikipedia.org/wiki/Amino_acid

Benardot, Dan (2012), *Advanced Sports Nutrition*, 2nd ed, Human Kinetics

Answer -The Benefits of Egg White Protein - <http://nutrition.answers.com/sports-nutrition/the-benefits-of-egg-white-protein>

Arleigh J Reynolds, DVM, PhD - www.absasleddogracing.org.uk/newgang/src/gangline/role.htm

Australian Institute of Sports - <http://www.ausport.gov.au>

BodyBuilder.com

Buzzle - <http://www.buzzle.com/articles/essential-amino-acids-list.htm>

Brown & Ferrigno, (2005). *Training for Speed, Agility and Quickness*, Champaign, IL: Human Kinetics.

Bryant, C & Green, D, editors (2003), *Ace Personal Trainer Manual*, 3rd ed., San Diego, CA: American Council on Exercise (ACE)

Buzzle - <http://www.buzzle.com/articles/essential-amino-acids-list.html>

Carbohydrates: About.com - <http://lowcarbdiets.about.com/od/glossary/g/glossstermcarb.htm>

Case, Carey, Hirakawa, and Daristotle (2000). *Canine and Feline Nutrition*, Missouri: Mosby, Inc.

Choose My Plate - Choosemyplate.gov

Colorado State University - Potassium - <http://www.ext.colostate.edu/pubs/foodnut/09355.html>

Complete Protein (Wikipedia) - http://en.wikipedia.org/wiki/Complete_protein

CVS.com

Cyanocobalamin (Wikipedia) - <http://en.wikipedia.org/wiki/Cyanocobalamin>

Dr. Hoffman.com

Dr. Weil.com

DSL Extreme <http://members.dslextreme.com/users/rotts4su/break.html>

Examine.com

Fitday: <http://www.fitday.com/fitness-articles/nutrition/vitamins-minerals/understanding-non-essential-amino-acid-function.htm>

LOST TEMPLE FITNESS

ExRx.net

ExRx.net: Carbohydrates - <http://exrx.net/Nutrition/Carbohydrates.html>

ExRx.net: Fat - exrx.net/Nutrition/Fat.html

ExRx: Glycogen - <http://exrx.net/Nutrition/Glycogen.html>)

Fatty Acid (Wikipedia) - http://en.wikipedia.org/wiki/Fatty_acid)

Feher & Szunyoghy (1996). *Cyclopedia Anatomicae*, Tess Press

Fitday: <http://www.fitday.com/fitness-articles/nutrition/vitamins-minerals/understanding-non-essential-amino-acid-function.html>

Gillette, R (2002). Temperature Regulation of the Dog. Retrieved June 2011 from <http://www.sportsvet.com/11Nwsltr.PDF>

Gillette, R (2008). *Feeding the Canine Athlete for Optimal Performance*. Retrieved September 25, 2008 from www.sportsvet.com/Art3.html.

Glucose (Wikipedia) - <http://en.wikipedia.org/wiki/Glucose>

Glycemic Index (Wikipedia) - http://en.wikipedia.org/wiki/Glycemic_index

Hand, Thatcher, Remillard, Roudebush, Novotny (2010). *Small Animal Clinical Nutrition*, 5th ed. Mark Morris Institute.

Hemp Milk (Wikipedia) - http://en.wikipedia.org/wiki/Hemp_milk

Hydrolysate (Wikipedia) - <http://en.wikipedia.org/wiki/Hydrolysate>

Kilocalories: (Wikipedia) - http://en.wikipedia.org/wiki/Food_energy

LiveStrong.com

Livestrong: Exercise & its Effect on Sodium Levels- <http://www.livestrong.com/article/80019-exercise-its-effect-sodium/>

Manore, M, Meyer, L and Thompson, J (2009). *Nutrition Strategies for Fitness and Performance*, 2nd ed. Human Kinetics.

Mayo Clinic - Fat - <http://www.mayoclinic.com/health/fat/NU00262>

McNarmara, John P (2014). *Principles of Companion Animal Nutrition*, 2nd ed. Pearson Education, Inc.

Medline Plus - <http://www.nlm.nih.gov/medlineplus/minerals.html>Generally

Mercola.com

Myofascial Release: Wikipedia - https://en.wikipedia.org/wiki/Myofascial_release

Nutrients (Wikipedia) - <http://en.wikipedia.org/wiki/Nutrient>

Nutrition Express - <http://www.nutritionexpress.com/article+index/authors/mark+g+taylor+ms/>

Nutrition.gov

Office of Dietary Supplements: B12 - <http://ods.od.nih.gov/factsheets/VitaminB12-QuickFacts>

Office of Dietary Supplements: Folate - <http://ods.od.nih.gov/factsheets/Folate-HealthProfessional>

Office of Dietary Supplements: Iron - <http://ods.od.nih.gov/factsheets/Iron-HealthProfessional>

LOST TEMPLE FITNESS

Office of Dietary Supplements: Selenium - <http://ods.od.nih.gov/factsheets/Selenium-HealthProfessional>

One Green Planet. com

Organic facts

Reynolds, Arleigh J DVM, PhD. *The Role of Glucose Polymers in Recovery from Exercise in Sled Dogs ...*, Cornell University, Ithaca, NY <http://www.absasleddogracing.org.uk/newgang/src/gangline/role.htm>.

The Nutritional Requirements of Exercising Dogs - <http://jn.nutrition.org/content/128/12/2686S.full>

Rikli, Roberta and Jones, Jessie (2013) *Senior Fitness Test Manual, 2nd Ed.*,

Senior Fitness Test Manual, Rikli, Roberta and Jones, Jessie C (2013)

Strength Training: (Wikipedia) http://en.wikipedia.org/wiki/Strength_training
The World's Healthiest Foods

Toll, P and Reynolds, A (1998). *Feeding Canine Athletes: Part I*. Retrieved September 25, 2008 from <http://www.vetmed.auburn.edu/uploads/1223/67/winter1998.pdf>

Twist, Peter (2009). *Twist Agility, Quickness and & Reactivity Workbook*. British Columbia: Twist Conditioning, Inc. University of Maryland Medical Center.com

UOM Medical Center

Vitamin Stuff.com

Waltham - pocket book of essential nutrition for cats and dogs – Proteins - https://www.waltham.com/dyn/_assets/_pdfs/waltham-booklets/Essentialcatanddognutritionbookletelectronicversion.pdf

Web MD Vitamins: <http://www.webmd.com/vitamins-supplements/ingredientmono-1005-branched-chain%20amino%20acids.aspx?activeingredientid=1005&activeingredientname=branched-chain%20amino%20acids>

Web MD Protein - <http://www.webmd.com/diet/protein-shakes?page=3>

Workout Australia

ZP.Tech