



# Health & Fitness Newsletter

PREMIUM PERFORMANCE TRAINING INC.

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## PREFACE

This is a bi-monthly publication of Premium Performance Training Inc. aimed at providing general information regarding current health and fitness trends.

### Quote to Remember:

*"Just because you are not sick does not mean you are healthy"*

- Unknown

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## The Importance of Warming Up, Stretching & Cooling Down

Warming up, stretching and cooling down are fundamental sections of any training or workout session; however, these sections are often overlooked due to either shortness of time, or the belief that they are not important. However, this misguided approach leaves much to be desired as these 'extra' 10 to 20 minutes in your workout/fitness/sports routine not only add immense value to your individual workout but, also helps you to maximize your overall performance, workout progress and recovery.

### **Warming Up**

#### **Why is Warming up important ?**

Warming up physically prepares your body for the strenuous demands of your upcoming workout session. Warming up is generally a cardio based activity performed at a lower intensity to gradually bring your muscles from a cold, stiff state to a warm, loose state. Warming up results in many physical and physiological changes within the participant (see page 5 for an overview of some of these changes) which lead back to the main physical and psychological benefits — injury prevention and mental preparation.



#### **How to Warm up effectively**

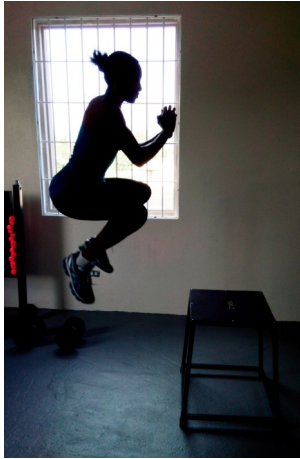
A warm up is generally a sport specific activity: the type of warm up used is usually a lower intensity version of the activity being performed. Nevertheless individuals should experiment to

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# Body Blast Circuit

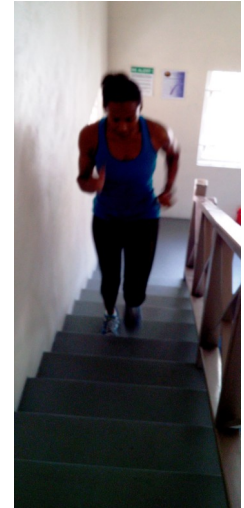
- Instructions:** (1) Warm Up with 5 — 10 minutes of cardio and stretch before beginning the circuit  
 (2) Complete 3 sets of the circuit  
 (3) Do not rest between exercises within a circuit a set; however, you rest 2 to 4 minutes between sets

\*Remember to cool down and stretch after your workout



**Box Jumps**

Exercise	Repetitions
Decline Push Ups	20
Step Ups	10 (each leg)
Stair Run	1
Inverted Rows	15
Power (Sumo) Isometric Squats	30 (seconds)
Stair Runs	2
Bench Dips	15
Box Jumps	15
Stair Runs	3
Front Plank	60 (seconds)



**Stair Runs**



**Decline Push Ups**



**Inverted Rows**



**Bench Dips**

\*\*\*\*\*

## Ask Yourself Answers

1. **True**
2. **True**
3. **False** — The ingredients listed on the nutrition facts label of food items are listed in largest to smallest quantities
4. **False** — Women take longer to digest food compared to men
5. **False** — There are three types of muscle tissue in the human body — skeletal, smooth, cardiac

### Caffeine Is The Main Performance Enhancer in Red Bull Energy Drink

Energy drinks, such as Red Bull, are very popular among athletes as many athletes consume them before workouts to increase exercise intensity and performance. Such energy contain caffeine along with various secondary ingredients (eg. Taurine). A Minnesota State University study led by Robert Pettitt found that Red Bull had no greater effect on aerobic metabolism and heart rate during a 10-minute bike ride compared to a drink containing the equal amount of caffeine (80 milligrams per 250-milliliter can of Red Bull). They therefore concluded that the secondary ingredients in Red Bull did not affect metabolism any more than simply caffeine alone.

*(Journal Strength Conditioning Research, 27: 1994—1999, 2013)*



### Training Load During Weight Training Does Not Influence Elevated Post-Exercise Metabolism



Metabolic rate is estimated through the measure of oxygen consumption, and increases above resting levels in direct proportion to exercise intensity. During recovery, metabolism remains above normal resting values, a phenomenon known as excess post-exercise oxygen consumption. George Abboud from Salem State College in Massachusetts found that high-volume, heavy weight training workouts (20,000 kilograms per workout) and lower volume, lighter workouts (10,000 kilograms per workout) had little effect on post-exercise oxygen consumption, despite the fact that caloric expenditure was twice as great during the heavier training session. Subsequent it was concluded that weight training had little effect on post-exercise metabolic rate.

*(Journal Strength Conditioning Research 27: 1936—1941, 2013)*

### Psychological Stress Delays Recovery From Strenuous Exercise

Psychological stress from serious life events (e.g. relationship and work problems, financial hardship, death, divorce) can have significant effects on your exercise routine. Matthew Stults-Kolehmainen from the Yale school of Medicine found that students who were under greater stress took longer to recover from a bout of intense weight training compared to students under less stress, as increased stress levels reduced energy and promoted fatigue and soreness.

*(Journal Strength Conditioning Research, published online December 2013)*

### Fat Burning Is Greater After A Meal Is Digested



In a study conducted by the University Tsukuba in Japan the fat oxidation and caloric expenditure of persons were measured for 24 hours after they had either consumed a meal or digested a meal. The results showed that when exercise was done after the meal was digested caloric expenditure was the same, but fat oxidation was greater and carbohydrate use was less. Subsequently they came to the conclusion that exercising on an empty stomach was more effective in increasing fat use during your workouts.

*(Metabolism Clinical and Experimental, 62: 793—800, 2013)*

# The Importance of Warming Up, Stretching & Cooling Down

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.... (Nevertheless individuals should experiment to) find the most suitable warm up for them based on their preferences. The most important factor is to insure that after your warm up you are physically and mentally prepared to perform at an optimal level in your upcoming workout.

## **Stretching**

### **Why is Stretching important and when to Stretch ?**



In many cases stretching goes hand in hand with both the warm up and cool down and is usually incorporated into both activities. Although for separate reasons, stretching plays similar roles when incorporated into the warm up or cool down. In both cases stretching is targeted towards loosening your muscles and improving your range of motion. Its use during the warm up is focused on helping you to perform optimally and avoid injury during your main workout, while during the cool down the focus is on returning your muscles to a relaxed state by helping to relieve the muscle tension

which would have accumulated during your workout. It is highly debated in some fitness circles whether stretching should be incorporated into a warm up routine as a result of scientific studies which have shown that static stretching before exercise can actually decrease strength and power outputs. In cases whereby a decrease in strength and power are limitations to the optimal performance of a workout, dynamic range of motion exercises are suggested. When stretching is incorporated into the warm up it should be done after you have raised your core temperature through the incorporation of a lower intensity cardio activity. Stretching is universally encouraged after exercise in conjunction with the cool down.

### **How to Stretch?**

Stretching routines are simple routines and can be customized to your preference. The most important factor when creating a stretching routine is to ensure that you incorporate stretches for the muscles that you are planning to use in your workout (warm up), or that you have used in your workout (cool down). It should be noted that for all the benefits of incorporating stretching into your routine it is possible to over-stretch. This is when you stretch too much, too far, or too hard that you cause tears or damage to the muscles being stretched. Situations like that should be avoided by gradually increasing or improving on the intensity of the stretches being performed over time.

For a full body stretching routine please see the workout routine in our July/August 2011 issue of the Health and Fitness Newsletter.

## **ASK YOURSELF ..... True or False ?**

Score: \_\_\_\_\_ out of 5

- |   |      |       |
|---|------|-------|
| 1. Strength training engages both your muscular and nervous system  | TRUE | FALSE |
| 2. A deep sleep burns more calories than watching TV  | TRUE | FALSE |
| 3. The ingredients listed on the nutrition facts label of food items are listed in smallest to largest quantities | TRUE | FALSE |
| 4. Men take longer to digest food compared to women   | TRUE | FALSE |
| 5. There are two types of muscle tissue in the human body   | TRUE | FALSE |

[Answers can be found on the bottom of page 2](#)

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## **Cooling Down**

### **Why is Cooling down important ?**

Conversely to the importance of warming up, the cool down is important to allow your body to gradually return from a stressful state which occurs during an intense workout, back to a relative state of rest. During a taxing workout your muscles accumulate lactic acid and other counter-productive agents which hinder the rate of recovery of your muscles. These agents are constantly being removed while you are exercising. However, when you stop exercising any waste left in the muscles will not be removed as rapidly due to a reduction in blood flow to and from your muscles. As a result the a delayed onset muscle soreness occurs. However, by including a cool down after your workout the heightened blood flow continues to flush these elements out of your system, subsequently allowing your muscles to more rapidly return to their pre-workout chemical equilibrium state.



### **How to Cool down effectively**

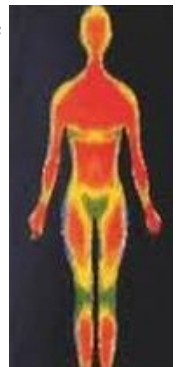
A cool down is any low intensity cardio activity which is done after the main, higher intensity section of your workout is completed. The intensity level during your cool down should be very low, such that your breathing and heart rate gradually return to a relaxed pattern and relatively resting state respectively. As previously mentioned stretching is usually incorporated into (or if considered a separate exercise) done after the cool down period to help relax the muscles that were engaged. Generally the cool down period should last approximately 5 to 10 minutes and, when completed, you should feel fully recovered from your workout.

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## **Overview of Physical and Psychological Changes & Benefits of Warming Up**

- ***Increases body temperature*** — reduces the risk of muscle and connective injuries
- ***Increases blood flow to heart gradually*** — reduces the risk for exercise-induced cardiac occurrences due to sudden increase in blood flow to heart
- ***Increases blood flow to exercising muscles*** — allows for the easier delivery of nutrients required for energy production
- ***Increases the speed of transmission of nerve impulses*** — improves motor faculties and enhances muscle coordination
- ***Improves metabolic activity of the muscles*** — enhances the delivery of oxygen to the muscles for energy production
- ***Helps to mentally prepare participant for strenuous activity***

<http://www.foundationpilates.com/infrared-sauna-can/>



Eating healthier does not have to mean eating boring. In our 'Healthy & Great' recipe section we will introduce you to some incredible recipes which are lower in sugar, fat and calories compared to their 'traditional' counterparts but are still full of flavor.



## Chicken Caesar Salad

### Method

#### To make the dressing

1. In a food processor combine the lemon juice, yogurt, mustard, garlic, Worcestershire sauce and anchovy paste, and pulse briefly.

2. With the processor running, slowly add in the olive oil until the dressing is creamy and smooth.

3. Add the Parmesan and pepper and pulse briefly.

#### For the salad

1. In a large bowl combine the lettuce, chicken, and croutons.

Pour the dressing on top of the salad and toss together to combine.

### MAKES 4 SERVINGS

#### Dressing:

- ◆ 2 tablespoons lemon juice
- ◆ 3 tablespoons low-fat plain yogurt
- ◆ 2 teaspoons Dijon mustard
- ◆ 1 1/2 teaspoons minced garlic
- ◆ 1 teaspoon Worcestershire sauce
- ◆ 1 teaspoon anchovy paste
- ◆ 2 tablespoons extra-virgin olive oil
- ◆ 3 tablespoons grated Parmesan cheese
- ◆ 1/2 teaspoon black pepper

#### Salad:

- ◆ 8 cups romaine lettuce
- ◆ 3 cups shredded cooked skinless chicken breast
- ◆ 1 cup croutons

#### NUTRITIONAL INFORMATION PER SERVING (generous 2 cups)

Calories: 325 / Carbohydrates: 9g (Sugars: 1g) /

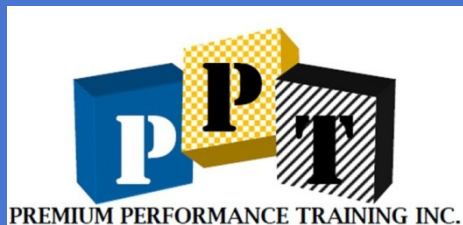
Total Fat: 14 g (Saturated Fat: 3g) / Protein: 39g /

Fiber 2g / Cholesterol: 105mg / Sodium: 360mg

**Recipe obtained from "Eat What You Love" - By Marlene Koch**

Contains more than 300 incredible recipes which are low in sugar, fat and calories and are great for weight loss & diabetes diets

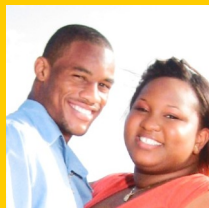
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### **Let Us Know What You Thought Of This Issue**

Read something that you disagreed with, that you did not understand or that was really helpful? Send your feedback to

**[jamiljones@premiumperformancetraining.com](mailto:jamiljones@premiumperformancetraining.com)**