

# FOREVER ACTIVE

PERSONALIZED FITNESS AND WELLNESS FOR MEN 50+

## Recovery Issue : Nutrition and Sleep

### Introduction

In the October 2019 issue of this newsletter we covered the key issues related to activity and exercise to help slow the aging process. Aerobic endurance activity, and muscular strength training were featured as the most important elements in our efforts to stay healthy and active as we grow older.

An important component briefly discussed was the importance of adequate recovery. The importance of recovery is to help enhance the training effect of the activity / exercise we participated in. Overtraining results from having inadequate recovery and leaves you vulnerable to chronic fatigue, and muscle and joint soreness, injury, illness and mood swings.

This newsletter will examine the topic of recovery more closely. Specifically, the two most important components of recovery will be focused on: Nutrition and Sleep.

### Two Most Important Components for Good Recovery



### Did you Know

#### Previous Publications on Nutrition by Forever Active

#### Nutrition

#### Newsletters:

**August 2012** - Nutritional Supplementation

**October 2012** - Antioxidants

**July 2013** - Hydration, the myths, the facts

**August 2013** - Weight loss, the myths, the facts

**Sept 2013** - Sports Nutrition

**April 2014** - The facts about Sugar and Gluten

**May 2015** - Cholesterol— The Facts

**January** - Nutrition in 2016

**January 2018** – Everything Nutrition

**April 2019** - The New Canadian Food Guide: A Review

**July 2019** - A Guide to Decoding Sugar Labeling

#### Articles:

1. 30 essential Foods
2. Nutrition & Running
3. Childhood Obesity and Foods Sensitivity
4. Difference between whole-wheat, whole-grain & multi-grain
5. Nutritional Food labels
6. Nutrition @ 50+

### Sleep

#### Newsletter:

**March 2014** - Sleep and Insomnia

# Nutrition and Recovery

It is often said that “you are what you eat.” With respect to the quality of your recovery, this is very true. In a nutshell, the importance of nutrition to recovery can be simply stated, “junk food in, junk performance out.”

The topic of nutrition and recovery can get very complicated but for the average active adult, if you follow the new **Canadian Food Guide** with its emphasis on vegetables and fruits making up half you meal and the other two quarters of your meal being focused on protein foods (lean animal meat, fish, poultry, eggs, Greek yogurt) and whole grain foods (grains such as oats and quinoa, nuts and seeds like almonds, peanuts, cashews, flax seeds) you will get sufficient vitamins and minerals to adequately supply the body with the nutrients it needs to facilitate muscle repair and growth.

## Canada’s Food Guide



If, on the other hand, you are more than average physically active and maybe even a masters athlete, nutrition for recovery becomes more scientifically sophisticated.

Without making the topic too complicated here is what you need to know:

1. Carbohydrates (CHO) and fat are the primary sources the body uses to produce energy
2. Protein is the primary building block for muscle repair and growth.
3. After activity/exercise of moderate intensity, both CHO and protein stores need to be replenished for appropriate recovery to occur.
4. An older adults need more protein during recovery than a younger individual because with age protein is not processed as well.
5. Use a 4:1 ratio CHO : Protein to adequately replenish these stores.

This is were it gets a bit complicated:

- there is a 2-3 hour window following exercise when the body is most sensitive to absorbing and utilizing CHO and protein for recovery.

- you need to ingest .5 grams of CHO for each pound of body weight.

**Example** - 220 lb person = .5 g CHO x 220 = 110 g of CHO and 28 g of Protein (4:1 ratio)

6. Hydration - drink plenty of fluids following activity/exercise. You want your urine a straw colour.

# Sleep and Recovery

Sleep is the primary means of recovery from training stress. This is because it is primarily during sleep that recovery stimulating hormones, Testosterone and Estrogen, are released. If you depend on your alarm clock to wake you in the morning you are probably not getting enough sleep/recovery.



## Types of Sleep:

1. **REM** – Rapid Eye Movement  
– occurs in the latter half of the night

2. **NREM** – Non-Rapid Eye Movement

Three Stages- N1, N2, N3 (Slow wave sleep)

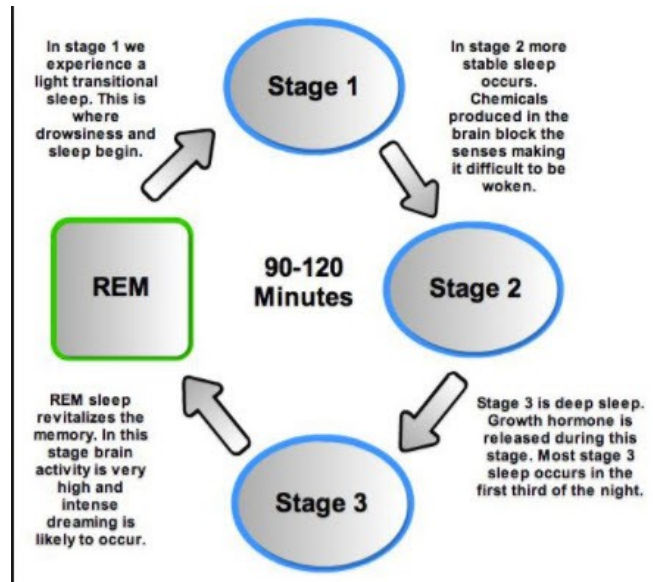
- in a full night of normal sleep your body progresses through the N1, N2, N3 and REM stages several times.

- **N1** – start with downiness and yawning

Melatonin (Hormone) – released at sunset and facilitates the start of N1

- production decreases as you get older

- **N3 (Slow wave sleep)** – makes up much of the early stages of a full night sleep



## Recovery and Sleep

**REM & N3** – stages of sleep when most of your recovery occurs.

1. **REM** – high quality sleep stage where we do most of our memorable dreaming

- 20-25% of your sleep

- this stage lasts a few minutes at a time

- happens every 90 minutes to 2 hours (NREM or brief awakenings makes up the in between time)

- **most recovery happens here due to release of testosterone (major) and estrogen (tissue building hormones)**

- since REM occurs late in a night's sleep cycle, shortening your sleep by awakening early to an alarm may diminish the release of these hormones and hinder full recovery

2. **N3 (Slow Wave)** – starts about an hour after falling asleep and recurs several times during the first half of the night's sleep

- 50% of daily Growth Hormone is released during N3

**Key Point** – N3 stage is shortened as we age as we tend to wake up more often

Age 20 – N3 20% of sleep

Age 60 – N3 3% of sleep

## Summary

As we age sleep becomes more fragmented and shallower and this results in a decreased release of Testosterone, Estrogen and Growth Hormone needed for recovery

## Ways to Improve Sleep

1. Avoid caffeine
2. Don't work out intensely 4 hours before bed and maintain a regular sleep schedule
3. Maintain a calm and quiet environment before going to bed and go to bed in a dark and cool room
4. Avoid high carb meals close to bed time as they produce the least restful sleep