



# 3 key things to take and do for authentic health and ability...

*Dr. Gordon Ko MD FRCPC is a Rehabilitation specialist and Assistant Professor, University of Toronto. His clinical expertise includes sports injuries and pain treatment with Platelet-rich plasma injections at Sunnybrook Health Sciences Centre and the Canadian Centre for Integrative Medicine, Markham. For more information and educational articles, check out [www.DrKoPRP.com](http://www.DrKoPRP.com).*

There is emerging scientific evidence that most of us in Canada should be taking three key supplements to help with our health, longevity and physical vitality. These are:

## #1) Vitamin D3.

- is a pro-hormone produced through your skin upon sun exposure that influences about 2000 of the 30,000 genes in your body; helps to protect against cancer, heart disease, diabetes, lung conditions, flu, auto-immune diseases like multiple sclerosis
- the Canadian Cancer society recommends taking 2000 i.u. (international units)/ day
- more accurate dosing by doing the 25(OH)-vitaminD3 blood test (ask your family MD; costs \$30 but is covered by OHIP if you have osteoporosis or malabsorption).
- a level >80nmol/L (lab normal) will lower risk for osteoporosis;
- aim for > 130-170nmol/L to lower risk for cancer, heart disease, diabetes, flu, lung disease.
- for every additional 1000 i.u./day taken over 3 months, the blood level will increase 25nmol/L
- avoid high doses if you have kidney calcium stones; lab toxic levels are >250nmol/L;
- vitamin D drops are cheaper than the pills or capsules and more easily absorbed.

## #2) Magnesium.

- is the 4th most common mineral in the body and important for nerve and muscle function, bone strength (along with calcium) as well as tissue binding for vitamin D.
- average adult daily requirement is 300-450mg/day; average adult intake is 200mg/day
- found in dark green vegetables (chlorophyll contains magnesium), legumes and nuts (like almonds), dark chocolate, whole grains (unprocessed), seafood and meat.
- deficiencies associated with heart problems, poor sleep, constipation, muscle cramps, restless legs, wheezing, chocolate cravings; too much will result in diarrhea
- best absorbed is Magnesium bis-glycinate or glycinate form. Avoid the oxide form.
- start with 100mg at night and increase to 200mg. For pain, increase to 200mg 3X/ day over 3 months. -if one has kidney disease, check first with family MD or specialist.

## #3) Omega 3 fish oil

- is a natural anti-inflammatory containing key ingredients EPA (eicosapentaenoic acid-helps decrease pain) and DHA (docosahexaenoic acid-helps with brain function)
- most common natural product taken and shown to be of benefit for heart disease, strokes (from blood clots), arthritis, colitis, alzheimers, depression and other disorders.
- take omega 3 and NOT omega 3-6-9. (6s are pro-inflammatory and too much in our diet) -take fish oil and NOT flax oil. (flax is poorly converted to EPA and estrogenic in men.) -choose a cost-effective brand with at least 400mg EPA per capsule (not per serving of 3) -choose a safe brand (free of mercury, PCBs, DDT) on [www.FishOilSafety.com](http://www.FishOilSafety.com)
- take 1-2 capsules/ day for health; increase to 2700mg EPA+DHA/day x 3 months for pain
- if stomach upset, try freezing enteric-coated capsules; avoid liquid in gallstone disease
- titrate slowly if diabetic; has blood-thinning effects, so stop 1-2 weeks before surgery

## 3 KEY EXERCISES TO DO REGULARLY:

### #1 Strenuous exercise (where you sweat as in taekwondo and kickboxing)

Training found to elevate the body's white blood cells (your natural killer cells) which means greater ability to fight off infections and cancer cells. One study on high school boys who exercised regularly (D.Nemet, British Journal of Sports Medicine 2004) found a 250% increase in these cells. Also seen in children as young as 8-years-old (S. Boas, Journal of Pediatrics 1996). Cardiovascular conditioning helps to prevent obesity and complications of heart disease and diabetes.

### #2 Stretching exercises (to correct muscle imbalances and improve posture).

### #3 Strengthening exercises (to build up the core muscles that support the spine and limb muscles for activities needed in daily living as well as sport).

A useful mnemonic for exercise is **WE FITTE**

**W**arm-up with limbering and stretching.

**E**nds with a cool down time and mental relaxation.

**F**requency of exercise at least 3x/ week; 5x/ week to lose weight

**I**ntensity: check resting HR and calculate target HR = (220 - age - RHR) x 0.70 + RHR

**T**ime of each exercise session: about 30-45 minutes at one's target heart rate

**T**rainer, coach, sensei guidance (for those ill or over age 40, please see family MD first).

**E**njoyable and Effectively prioritized into one's busy schedule.

*The Authentic TKD mandates are the attitudes of self-control, perseverance, integrity, courtesy and indomitable spirit. Emphasis is also on learning skills for self-defense and for integrating exercises that train the body for any emergency or stressful situation. He and his family participate regularly in Authentic Tae Kwon Do Martial Arts academy in Markham where his four children have their blackbelts. Dr. Ko and his wife Dr. Hum work-out in the kick-boxing classes usually led by Dr. Daniel Gibbs.*

*For more information about the Authentic Tae Kwon Do martial arts academy 7676 Woodbine Ave (near Hwy 14) in Markham, contact Master Farah at 905 947-1235. [HYPERLINK "http://www.AuthenticTaeKwonDo.ca"](http://www.AuthenticTaeKwonDo.ca) [www.AuthenticTaeKwonDo.ca](http://www.AuthenticTaeKwonDo.ca)*