



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

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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 with 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 80-100 nmol/L to lower risk for heart 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;
- if you have chronic fatigue, then a 1,25(OH)-vitamin D3 test can be done → if this is 2x + more than the 25-OH test—suggests a chronic infection
- vitamin D drops are easily absorbed; best compliance with ViDextra tablets which is 10,000 i.u.—taken once a week and also covered by insurance plans.

## #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; the average North American adult intake is 200mg/day
- found in dark green vegetables (chlorophyll contains magnesium), legumes and nuts (like almonds), dark chocolate, whole grains (unprocessed), seafood, meat.
- deficiencies associated with heart problems, poor sleep, constipation, muscle cramps, restless legs, wheezing, chocolate cravings; too much will result in diarrhea
- best absorbed form is Magnesium bis-glycinate or glycinate form. The citrate form taken at night (one easy to take product is “CALM” powder) will help with constipation. 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, alzheimer's, depression, dry eyes.
- take omega 3 and NOT omega 3-6-9. (6s are pro-inflammatory and we have 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) with ratings on [www.FishOilSafety.com](http://www.FishOilSafety.com)
- take 1-2 capsules/day for health; increase to 2700mg EPA+DHA/day x 1-3 months for pain; Dr. Ko likes to take SuperEFA (Seroyal) 1tsp/day.
- if stomach upset, try frozen 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 kickboxing classes)

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**

Warm-up with limbering and stretching.

End with a cool down time and mental relaxation.

Frequency of exercise: at least 3x/ week; 5x/ week to lose weight

Intensity: check resting HR (in a.m. just before getting out of bed) and calculate target HR =  $(220 - \text{age} - \text{RHR}) \times 0.70 + \text{RHR}$

Time of each exercise session: about 30-45 minutes at one's target heart rate

Trainer, coach/sensei guidance (for those ill or over age 40, see family MD first).

Enjoyable + Convenient—prioritize into one's schedule (which makes it “EC”).



*The Authentic TKD mandates are the attitudes of self-control, perseverance, integrity, courtesy and indomitable spirit. Emphasis is also on Learning skills for self-defence 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 led by Dr. Daniel Gibbs or Blackbelt Adib. 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. [www.AuthenticTaeKwonDo.ca](http://www.AuthenticTaeKwonDo.ca)*