



# How can we use this information?

Implement the 5 Brain Boosters



**Boost Your  
Brain**

Feed it      Train it  
Defend it      Befriend it  
Manage it



# THE 5 BRAIN BOOSTERS

## Feed it - with smart nutrition

- Increase your brain's positive chemicals: egg yolks, liver, lecithin and soybeans.
- Free radicals are like rust on your neurons and they can kill them. Antioxidants reduce free radicals and include: vitamins A, C and E, fruit and vegetables, apple juice, raisins, blueberries, prunes and spinach, selenium, co-enzyme Q10, green tea polyphenols, tocotrienols foods (barley, wheat germ).
- DHA Omega-3 fats from fish or nuts/beans (walnuts, linseed or canola oil and soybean) help keep the fatty acid membrane around neurons intact. Best is eating fish (particularly salmon, halibut, cold water fish).
- Turmeric is thought to be an anti-inflammatory agent with possible anticancer effects. Curries are likewise thought to defend the brain, with cumin a likely candidate.
- Carbohydrate increases serotonin, influencing mood and cortical tone. High protein decreases appetite.
- The lower your cholesterol levels from low fat intake, the better for blood flow and cognition.
- Ginkgo Biloba increases blood flow and oxygen to your brain (especially the CA3 fields involved with memory), as do the terpene flavanoids in other compounds such as wine, tea, rooibos tea.
- Coffee increases alertness, attention, executive functions, focus, short term memory, energy and mood. Also a small protective effect against Alzheimer's dementia, Parkinson's disease and depression.




# Train it - using a Brain Gym

- ‘Neurons that fire together - Wire together’. Every time you solve a problem or learn a new skill, you give your brain a bit of a workout.
- Practice and targeted training will improve the functional efficiency of your brain’s networks.
- Select a Brain Gym tailored to your relative strengths and weaknesses (memory, attention, planning, problem solving, decision making) as seen with WebNeuro.
- The trick is to learn new and varied things each day and extend your learning to become increasingly efficient at processing more complex information.
- A Personalized Brain Gym is ideal, but any problem solving task is good exercise for your brain (such as reading widely, crossword puzzles, Sudoku, playing chess, bridge or Trivial Pursuit).
- Also Brain Games from the web:
  - [www.BrainAge.com](http://www.BrainAge.com)
  - [www.BrainBuilder.com](http://www.BrainBuilder.com)
  - [www.PositScience.com](http://www.PositScience.com)
  - [www.HappyNeuron.com](http://www.HappyNeuron.com)
  - [www.CogniFit.com](http://www.CogniFit.com)
  - [www.MyBrainTrainer.com](http://www.MyBrainTrainer.com)



## Defend it - by moderation and vigilance

- Limit substances that kill your brain cells: copious amounts of alcohol (especially binge drinking), smoking, a variety of recreational drugs.
- Smoking doubles the risk of getting Alzheimer's dementia.
- Those with a history of head trauma are also twice as likely to have Alzheimer's disease. Wear protective head gear and seat belts and guard your gray matter.
- As the aging population retains more physical fitness, but with diminished balance, the risk of falling off ladders and roofs of houses while doing household repairs has substantially increased the number of 50+ men admitted for rehabilitation to brain injury wards: stay firmly grounded!
- Be more careful than ever when crossing a road or driving your car; don't run to avoid getting wet in the rain, and use hand grips in the shower or bath.
- It is now accepted that the use of cholesterol-controlling drugs such as statins decreases the risk of stroke.
- New evidence is pointing to the immoderate watching of TV as being linked to deterioration of the brain: limit your use of 'brain candy' and challenge your brain with more interesting viewing habits.
- Sleep is thought to be involved in consolidating memory, attention, skills, decision making, speed of reactions, mood and even creative thinking. Good sleep habits are therefore essential.



# Befriend it - Socialization matters

Connectedness – build social networks you can trust and spend quality time with them, family, friends and strangers.

## **Join:**

- a gym
- a walking group
- a meditation group
- a book club
- a philosophy group

## **Go to:**


- a park and watch others
- a coffee bar
- local community education centres, be around young people

## **Volunteer:**

- as a museum guide
- for a political party
- amnesty international
- environmental group

Many straightforward models to enhance Wellbeing and Happiness exist. For example, Sonja Lyubomirsky suggests:

- Count your blessings: form a 'gratitude journal'.
- Practice acts of kindness to increase your sense of connection with others.
- Savor life's joys and pay close attention to momentary pleasures.
- Thank a mentor to show a debt of gratitude.
- Learn to forgive and thereby let go of anger, resentment and revenge.
- The biggest factor is strong personal relationships, investing time and energy in friends/family.



# Manage it - Brain Boost & Self Transformation

- Bring together the 5 BRAIN BOOSTERS in a Personalized manner by choosing those that best fit your needs.
- Stress and Wellbeing: “The Science of Wellbeing” has emerged (see the World Database of Happiness – [www2.eur.nl/fsw/research/happiness](http://www2.eur.nl/fsw/research/happiness)).
- Chronic stress is toxic to your neurons and Wellbeing.
- Chronic anxiety is associated with depression and the ruin of your immune system.
- Anxiety responses decrease your focus, increase frustration, impatience, resentment and sadness.
- Martin Seligman has found that optimism is a trait associated with physical health, less depression and mental illness, longer life and greater happiness. Well-adjusted people tend not to focus on negative aspects of themselves.
- De-stress with exercise for 30 minutes, 4 days a week – is associated with increased brain oxygenation, new brain connections and endorphin secretion which increases your sense of wellbeing.
- Positive thinking in all its guises, whether it be Cognitive Behavior Therapy or the range of relaxation techniques – including yoga, all forms of mindfulness meditation etc – has positive brain function consequences and are readily incorporated into mastering anxiety and choosing the best elements for Self-Reflective Transformation.