

Happy Christmas and a prosperous New Year to everyone in the Millhouse Community,

This is the final newsletter for the year. Summer is here even though it has been pouring with rain and I've been shut indoors missing out on the health and healing properties of sun-induced vitamin D.

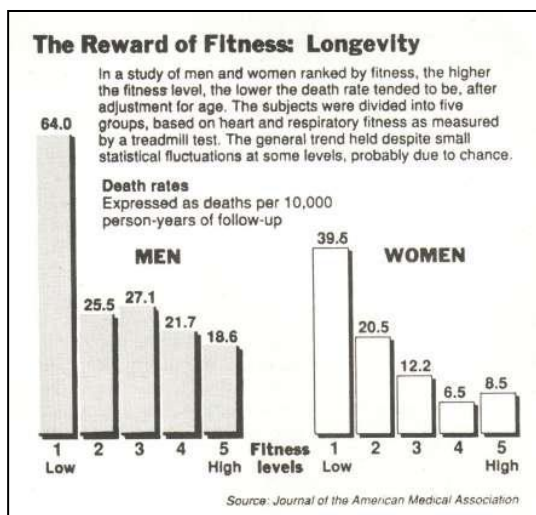
This Xmas and the New Year I invite you to **participate in a lifestyle change** that more than any other prevents disease and cures illness.

Begin an EXERCISE PROGRAMME.

In the table opposite, I have listed the benefits of performing regular exercise. The big disappointment is that only 50 percent of people who initiate an exercise programme will continue beyond six months.

What is the best form of exercise?

The table below on **The Reward of Fitness** demonstrates how a **LITTLE fitness is hugely more beneficial than NOT exercising and has a dramatic effect to increase life expectancy**; lower death rates for both men and women result.



runners had changes in their heart rhythms. At the University of Duisburg in Germany, researchers³ were surprised when heart CT scanning showed that 35 percent of marathon runners had significant artery plaque, compared with a control group that had only 22 percent blood vessel changes.

If you are middle aged and considering marathon running, triathlon competition or other prolonged excessive exercise, consider having a heart assessment before beginning.

There are many forms of exercise

From slow rhythmical stretching (simple stretching programme, taichi & yoga), gentle strengthening isometric (joints don't move) and isotonic (joints move) muscle routines, aerobic exercise (walking, running, cycling, swimming, dancing) and anaerobic weight resistance/lifting muscle exercises.

We all need to exercise.

Begin. Every few days stretch your joints and tight muscles, especially if you are sitting or using a computer for long periods or lead a stressed life.

Consider 2-3 times weekly a routine that strengthens muscles and builds strong bones. This will help prevent back and other injuries, lessen falls (especially in the elderly) and slow bone loss.

Get Advice – speak to our practice nurses for advice, join a Pilates, Yoga, Taichi, fitness or dance class. Consider seeing a personal trainer for a few sessions.

BENEFITS OF EXERCISE

- Increases oxygen supply to the body & all cells
- Improves quality of life
- Is anti-aging protecting against the loss of telomeres that preserve genes
- Enhances lung function, improves asthma & chronic airways disease
- Lowers cholesterol & blood fats
- Thins blood & prevents blood clotting
- Hastens weight loss
- Promotes insulin uptake, prevents & improves diabetes
- Lowers blood pressure
- Prevents heart disease, strokes & improves heart attack survival
- Strengthens muscles, improves flexibility
- Prevents falls and injury in the elderly
- Increases bone strength & improves osteoporosis
- Protects against cancer and assists cancer survival (colon, breast, uterus)
- Normalizes bowel function & lessens constipation
- Improved sleep
- Enhances self confidence & self esteem
- Lowers anxiety and the response to stress
- Assists recovery from depression

In 2001 Dr Arthur Siegel¹ and his colleagues at Massachusetts General Hospital studied sixty middle aged Boston Marathon participants (41 men, 19 women) taking blood samples from them twenty minutes after finishing the race. 60 percent of the runners had elevated blood troponin levels suggesting heart muscle damage similar to that observed in patients experiencing a heart attack.

Dr Siegel commented that **'their hearts appeared to have been stunned'** and the running had also caused injury to the skeletal muscles which **'sets off a cascade of inflammation in the body'**. Over time, inflammation accelerates artery damage and the build-up of plaque lining the blood vessel. In a later study² they showed that most

GENERAL TIPS TO HELP YOU BECOME ACTIVE AND STAY ACTIVE

- Incorporate physical activity into your day
- Set a goal
- Be active as a family or with friends
- Plan outings that include physical activity
- Try a range of activities
- Choose activities you enjoy
- Replace screen time and sitting time with physical activity.
- Start slowly - 5-10 minutes and build up to 30 minutes a day
- Break up the 30 minutes into smaller amounts
- Increase time and intensity as your fitness improves
- Keep a record of your activity to follow your progress
- Change sedentary activities for active ones
- Set yourself a goal or challenge
- Spend less time in front of the television or computer
- Walk when you can; park a block from your destination.
- Take the stairs not the lift.

Search the Ministry of Health website on physical activities for ideas and recommendations.

www.moh.govt.nz/moh.nsf/indexmh/physicalactivity

**Share the experience with a friend. Make new friends at an exercise class.
Do something, even if it's just walking a little further each day**

Finally I want to discuss how improved lung function and short bursts of intense exercise improve health.

The thirty-year Framingham Heart Study on 5209 town residents showed that **lung function is the prime predictor of general health, vigor and longevity**. The study concluded that lung vital capacity falls between 9 percent to 27 percent each decade, depending on age, sex and the time the test was given.

In the 1960's German physicist Manfred von Ardenne showed improvement in the lung function of older men and women who used short bursts of intense exertion followed by rest and recovery. Ardenne discovered that **body cells produce more energy with short sharp bursts of intense activity. Blood flow to the lungs and heart (cardiac) output increases by more than 400 percent with intense exertion and the brain receives twice as much blood and oxygen than it does with light and moderate exertion.**

These findings are supported in the Harvard Health Alumni Study⁴ which found that high intensity exercisers had a lower death rate than those who performed less vigorous exercise.

Animals instinctively exert themselves with small bursts of energy followed by rest. Rarely will animals run for hours and hours continuously.

Vigorous exercise leads to oxygen debt which triggers bigger and more efficient lungs.

Advice:

I suggest that when you exercise, for 30-60 seconds work as hard as you can. If you are walking go hard as you can between 2-3 lampposts, run as fast as you can up steps or a hill, perform push-ups or other exercises vigorously, sit in the chair and lift small dumbbells rapidly – I'm sure you can think of other routines.

Let me conclude with the research of Professor of Martin Gibala⁵ of the University of Ontario. In 2005 he showed that average-fitness young men who cycled vigorously for 30 sec then rested for 4 min, repeating the sequence between four and seven times, received the same physiological benefits as a person doing traditional prolonged endurance training.

The Daily Telegraph reported this research as '**Six minutes of exercise a week is as good as six hours**'.

If you interested in reading more about this approach to exercise I recommend Dr Al Sears MD book, 'PACE- The 12-Minutes Fitness Revolution'.



“What fits your busy schedule better, exercising one hour a day or being dead 24 hours a day?”



MILLHOUSE NEWS

130 Millhouse: Dr Else and Dr Scott have settled into the new clinic. Thank you for being patient and accepting of the glitches we have experienced with the new telephone system. We have changed to KiwiVoip a digital internet computerized system which has taken time to be embedded and interface with the existing analogue fax-printer.

Xmas-New Year break: The clinic will remain open on weekdays and the Saturday morning surgery will resume on January 8th.

Website: With all the changes we have updated our site information and format. Take a look at www.millhousemedical.co.nz

Yours in good health
Dr Richard J Coleman

¹ Seigel A et al, Effect of marathon running on inflammatory and haemostatic markers. Amer J Cardiology. 2001;88(8):918-920

² Neilan TG et al, Myocardial Injury and Ventricular Dysfunction. Circulation 2006;114(22):2325-2333

³ Mohlenkam S et al, Running the risk of coronary events. Eur Heart J 2008;29(15): 1903-1910

⁴ Lee IM et al, Exercise intensity and longevity. JAMA 1995;273 (15):1179-1184

⁵ Gibala MJ, Short Term Sprint versus traditional endurance training. J Physiology 2006;205:901-911