

Health Mentor Programme —

Exercise part 2

MENTOR SESSION 29

IN THIS SESSION:

- Do you really know what exercise is?
- Make the work-out time worthwhile!

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Not all exercise is equal!

In this session things get practical...

It's no good spending time and money exercising when it's not actually doing the job for you. So, you need to tailor exercise to best suit who you are!

What are the requirements for exercise to qualify as proper exercise?

They are:

- a) Minimum time
- b) Minimum intensity
- c) Type of exercise

Let's start by looking at time...

The clock matters...



Three very prominent organisations feel the same way: The U.S. Surgeon General, the Center for Disease Control and Prevention and the American College of Sports Medicine have the following to say about exercise and time...

You need a minimum of **30 min** of **moderate-intensity** physical activity on **most days of the week**. You can do all 30 minutes at once or break it up into 10- or 15-minute periods.

It's interesting to note that the beneficial effects seen in studies on blood lipid (fat) profiles were related to how regularly the people exercised during a week and **NOT** the intensity **OR** the fitness of the individual.¹⁵

Remember what we said in session 28 about avoiding sick days!

In one survey that was done with data from 175 850 people in the USA²⁰ it was found that the following groups of people have more unhealthy days in their year. They are:

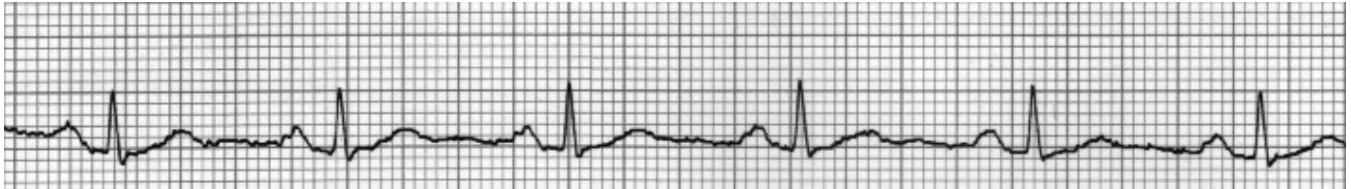
- People who don't exercise at all,
- People who exercise less than 3 days per week,
- People who exercise 7 days a week,
- People who exercise less than 20 minutes per session,
- People who do strenuous exercise lasting more than 90 minutes per session.



The right intensity

Intensity measure 1: Heart rate

The second requirement for exercise to qualify as proper exercise is **minimum intensity?**
The key to understanding intensity is to know what your heart rate should be when you exercise.



The ideal is to exercise at target heart rate and this is worked out as follows:

- a) Your resting heart rate is taken when you've sat for at least 5 minutes or early in the morning just after waking up.
- b) Maximum heart rate: 220 minus your age.
- c) Here is how you determine your target heart rate
 $0,7 \times (\text{max ht} - \text{rest ht}) + \text{rest ht}$

Let's make this practical. If your age is 35 and your resting heart rate is 60 then this is how the calculation will look:
 $0,7 \times (185-60) + 60 = 147,5$
 Your target heart rate for basic fitness exercise is thus 147-148.



Your heart rate is a key to health!

Intensity measure 2: METs



Another way to determine adequate exercise intensity without having to measure heart rate is to understand 'Metabolic equivalents' (METs)

1 MET (Metabolic equivalent) = The energy it takes to sit quietly for 1 hour.

That translates to 0.24kJ/kg body weight.

Thus an average 70kg adult would burn about 16,7kJ/hour while sitting or sleeping.

So how many METs are required to fulfill your minimum exercise requirement?

Exercises that clock in at 3-6 METs.

This also seen as moderate intensity activities which are strenuous enough to burn off 3 - 6 times as much energy per minute as you do when you are sitting quietly.

See more on the next page as I explain how valuable moderate intensity exercise can be...

Intensity measure 2: METs continued

What is moderate intensity exercise?

What is moderate exercise?

Activity that causes a slight but noticeable increase in breathing and heart rate.

Not sure yet then do the “Talk test”

The talk test is when you exercise hard enough to break a sweat but not so hard that you can't comfortably carry on with a conversation.

Taking the amazing walk!

Yes a good brisk walk does qualify as moderate intensity exercise!

How fast is a brisk walk? 4,5—6,5km an hour or as fast as you'd walk if you were late for an important appointment. The good news is that 1 hour of this type of walking per day is enough for you to start losing weight and keep it off!



Why the big fuss about moderate intensity exercise?



Well the answer is simple and it lies in what we learnt from the following studies:

The Nurses' Health Study including 70 102 woman,
The Women's Health Study including 39 372 female health professionals,
The National Health Survey including 2896 people.

All these large studies showed a definite decreased risk for heart disease, diabetes and several other diseases through regular brisk walking (which you now know is moderate exercise)!

Are you getting this?! That's 112 370 people and it's telling us that something as simple as brisk walking can prevent MAJOR diseases!^{2,4,7}

Remember the balance!

At this point it's important to remember what the FULL recommendation is.

You need a minimum of 30 min of moderate-intensity physical activity on most days of the week.

See the next page for a full list of exercises and their METs

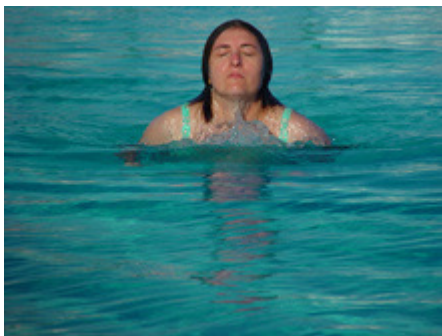
'The sovereign invigorator of the body is exercise, and of all the exercises walking is the best.'
Thomas Jefferson (1743 - 1826)

Common activities and their METs

Remember that you're aiming for 3-6 METs to have a proper exercise session!

Mild intensity exercise

Playing the piano	2.3
Canoeing (leisurely)	2.5
Golf (with cart)	2.5
Walking (2 mph)	2.5
Dancing (ballroom)	2.9



Moderate intensity exercise

Walking (3 mph/4.5 kmph)	3.3
Cycling (leisurely)	3.5
Calisthenics (no weight)	4.0
Golf (no cart)	4.4
Swimming (slow)	4.5
Walking (4 mph/6.4 kmph)	4.5

Vigorous intensity exercise

Chopping wood	4.9
Tennis (doubles)	5.0
Ballroom (fast) dancing	5.5
Cycling (moderately)	5.7
Climbing hills (no load)	6.9
Swimming	7.0
Walking (5 mph/8 kph)	8.0
Jogging (10 min mile)	10.2
Rope skipping	12.0
Squash	12.1



Activities of daily living

Here's more good news... You can achieve your exercise goals using activities of daily living (ADL)! The large studies that were mentioned in session 1 also commented that simple forms of exercise like ADL **substantially reduce** the chances of developing heart disease, stroke, and diabetes in different populations! So go mow your lawn!

ADL activities and their METs

Walking from house to car or bus	2.5	Vacuuming	3.5
Loading/unloading car	3.0	Lifting items continuously	4.0
Taking out trash	3.0	Raking lawn	4.0
Walking the dog	3.0	Gardening (no lifting)	4.4
		Mowing lawn (power mower)	4.5

What **type** of exercise?

Remember that in this session we're looking at three requirements for exercise to qualify as exercise:

- a) Minimum time
- b) Minimum intensity
- c) Type of exercise

In terms of the **type** of exercise let's look at the three components of a balanced cross-training session. They are:

- **Stretching**
- **Cardio training**
- **Weight training**

Cardio

Every exercise session should have it's cardio component. It could be the treadmill, the bicycle or whatever you need to reach your target heart rate and keep it there for 20 minutes or more.



Stretching

Flexibility Training

Stretching is important for the following reasons:

- It increases your range of motion
- It decreases muscle soreness associated with exercise
- It may decrease exercise related injury

I know from experience that this is one area of exercise most people neglect but you should view it as just as much **PART** of the exercise session as the cardio and weight training!

Muscle training

In your mid to late twenties you start losing muscle mass as part of the normal ageing process. Thus with less muscle mass the calories we need each day starts to decrease and it becomes easier to gain weight.

With regular strength training exercise it is possible to decrease this loss of lean muscle tissue and even replace some that has been lost already.

The benefits of muscle (resistance) training are clear!

- It increases lean body mass
- It decrease fat mass
- It increases resting metabolic rate (i.e. you burn fat faster)
- It helps prevent osteoporosis



How to maintain...

I trust that after these mentor sessions you'll be far more excited about getting fit than ever before! Maintenance is a key here and it's handy to know the following:

Fitness is lost when you exercise 2 times or less per week

Fitness is maintained if you exercise 3 times a week and more

People who exercise on most days of the week reap the most benefit!

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About Dr Anton



Dr Anton Janse van Rensburg is a practising medical doctor who has devoted himself to the study of unique, scientifically sound solutions to modern diseases. He is also a qualified metal toxicologist, has a master's degree in Applied Human Nutrition and is the South African programme director for the Robertson Wellness Brain Chemistry Optimisation Programme.

He has written on a variety of wellness topics for numerous South African magazines and newspapers and in 2009 co-authored the book 'Diamonds in the Dust – crafting your future landscape'.

Besides being a wellness coach to company executives Dr Anton is an established public speaker and no stranger to radio and television. He has provided guidance to scores of audiences with his passion for wellness education.

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