

# The Source Mentor session

## Bone health - Part 1

MENTOR SESSION 31

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### IN THIS MENTOR SESSION:

- Are you looking out for your bones?
- Starting early is key with bone health!
- What supplements you really need?

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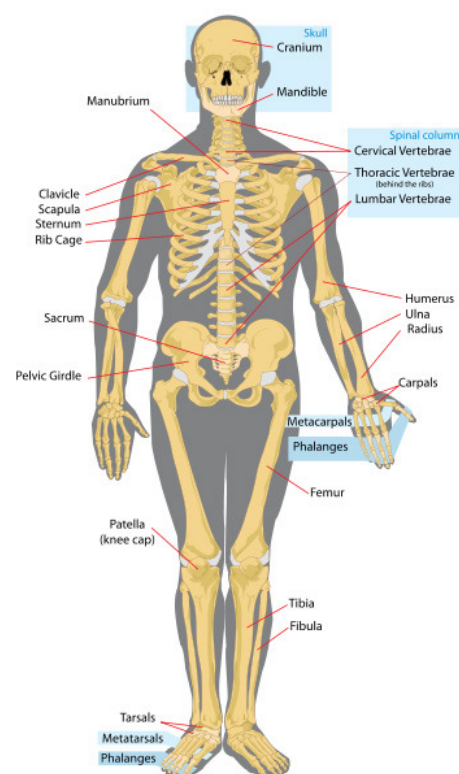
## Don't break a leg...

### Don't forget the bomb...

As I mentioned in my exercise sessions, osteoporosis and its associated fractures are regarded as a major public health problem. The number of osteoporotic fractures is expected to double over the next 50 years.<sup>1,2</sup>

**Who's affected?** 1 in 2 women and 1 in 5 men over the age of 50 years!

Yes gentlemen, you're going to have to stick around for this session. Bone health isn't just a 'female issue'.



## Show some backbone!



**Don't go all jelly about calcium**

In this session we will be looking at how you can protect your reservoir! Yes, your skeleton is more than just the frame on which your body is built or the main feature that distinguishes you from a jelly fish!

It also serves as a reservoir for minerals like calcium and phosphates that are absolutely crucial to your health especially in the later years...

**Interesting fact:** Your body contains about 1kg of calcium of which 90% is found in your skeleton!<sup>3</sup>

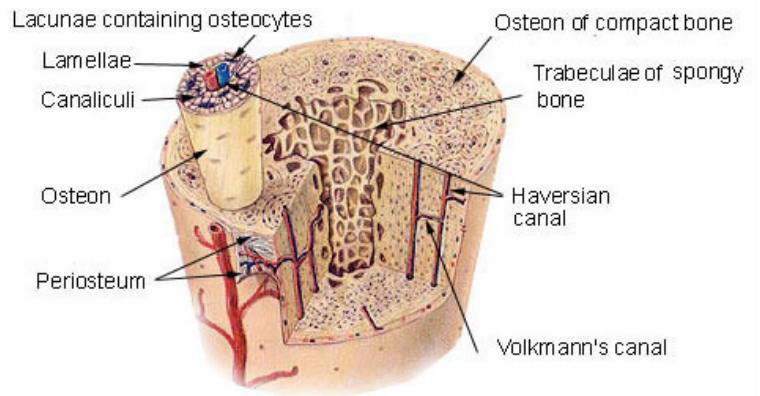
# It's alive!

We tend to forget that bone is just as alive as any other organ in our bodies.

Only about 70% of your bones are minerals and the rest is made up of a complex system of blood vessels and living bone cells that are constantly breaking down and rebuilding the structure of the bones.

This constant process of building up and breaking down changes as you age and it's important to take note of this so you can act early and accordingly!

## Compact Bone & Spongy (Cancellous Bone)



# Stages of change

Let's have a look at what bone does at certain stages in your life...

**10 -30 yrs:** Lots of building and growing. Bone density not at its peak yet.

**30's:** Here your bone density is at its peak and this is where you should already be planning ahead for the days of less...

**40 – 50yrs:** Here the breakdown of bone starts to become more than the rate of building and some bone loss takes place. The problem here is that some woman enter menopause with bone already lost!

**50+:** In the first 6 years of menopause bone loss could be as high as a 10 fold increase in previous bone loss. Gotta do something now!



## Take note!



**There are medications, conditions and habits that can cause bone loss. They are:**

- Cortisone (steroid) therapy
- Testosterone-deprivation therapy in prostate cancer patients
- Kidney disease
- Organ transplants
- Smoking
- Regular intake of cola beverages results in a too high intake of phosphorous and can cause bone loss

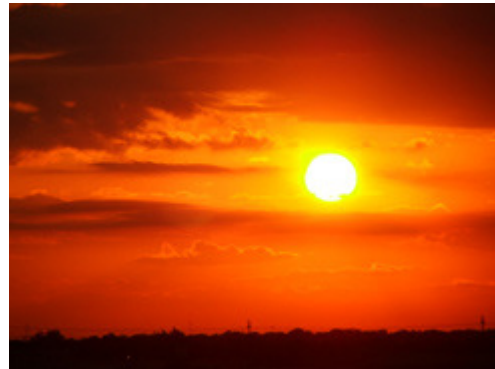
# Boosting your bones!

Various things can boost your bone health...

## Step 1: Sunlight

Get enough sunlight on a daily basis because vitamin D, which is crucial for calcium metabolism, is produced in your skin!

Try to be outside at least 15-30 minutes in the early morning or late afternoon and get those rays on your bare skin!



## Step 2: Exercise

Remember my reference to the study that was conducted on older woman in the USA to determine which activities were good to increase bone density? <sup>4</sup>

The activities were dealt into three groups ranging from weak predictors for high bone density values to strong predictors.

**Weak predictors:** Jogging, swimming and calisthenics.

**Moderate predictors:** Bicycling, aerobics, walking and dancing.

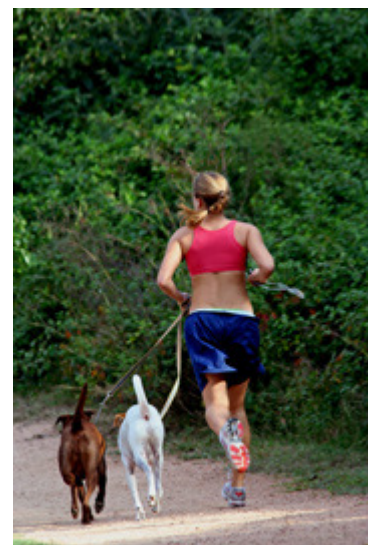
**Strong predictors:** Weight training and yard work.

**Remember that yard work and weight lifting are equally great to maintain healthy bones!**

### When to start?

Start exercising at a young age to maximise mineral density in bones. Exercise should preferably not be interrupted into old age so that bone density is maintained (World Health Organisation Bulletin!)

Post menopausal women who make exercise a lifestyle from their peri-menopausal years have fewer bone fractures.<sup>5</sup>



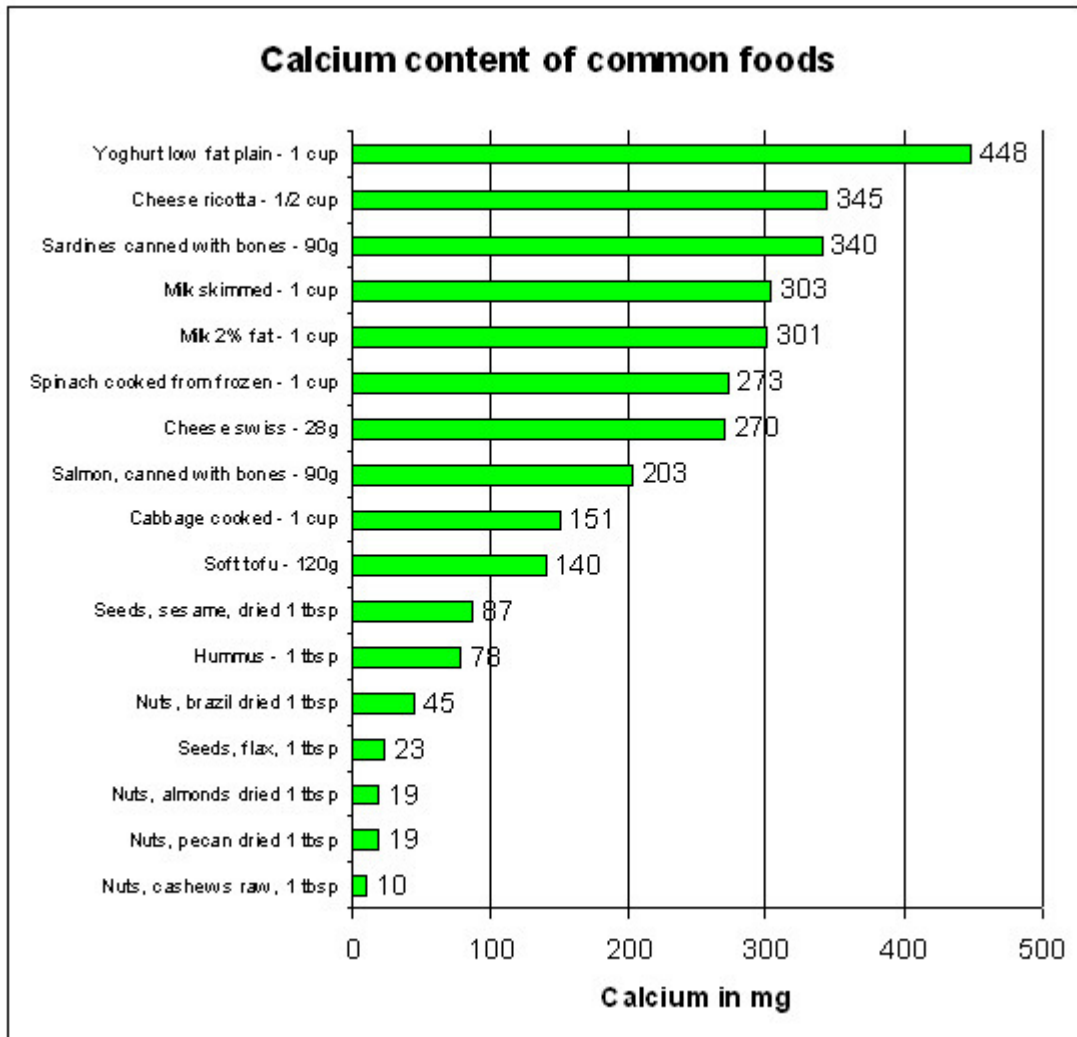
### How much exercise?

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

Your exercise should be more than 20 minutes but less than 90 minutes long per session and you should take at least one day off per week. <sup>6</sup>

## Step 3: Food

**Eat enough foods that are rich in calcium!**  
 Here is a list of foods that are high in calcium...



Note the hummus in the line up! You know I like hummus because of the high quality oil and plant protein that it contains. Its healthy calcium content is another great reason to go for hummus!  
 (See the hummus recipe in mentor session 6)

## About fish

### Sardines:

Sardines have lower levels of mercury compared to many other fish species and are generally regarded as safe in pregnancy. (The rule of thumb is to avoid the predator fish.)

You get a good form of calcium from sardines but I would not skip the calcium or oil supplements. Oil supplements provide a very focused dosage of omega oils and the calcium supplements also provide optimal dosages, which you want while pregnant.

Also, rather choose sardines in olive oil or tomato sauce than sardines in sunflower oil.

### Salmon:

Canned salmon is also a good source of calcium but remember that you need to eat the bones of the fish to get the benefit of the calcium!



## Fortified?

There are several foods on the market that are fortified with extra calcium. Just be careful to read the labels to ensure proper calcium levels because, although some drinks claim high calcium levels, they're not always that great!

An example of a food that contains extra calcium are soya drinks that are used as dairy replacements by some people. In a recent study it was found that giving elementary school children a calcium-enriched soya drink provided a good source of dietary calcium.<sup>8</sup>



## More about soya...

Despite the controversy that exists regarding soya, the literature still favours this food product and the powerful isoflavones it contains (the effect of the soya on bone density is attributed to these isoflavones).

In one study a group of woman were given either low fat milk or soya for a period of time to see what the effect would be on spinal bone density.<sup>9</sup> Only the soya group showed decreased bone loss in the spine.

The other study that is useful to note was the Shanghai Women's Health Study where the relationship between soya consumption and fracture incidence in 24,403 postmenopausal women was measured. The women who consumed more soya had a reduced fracture risk.<sup>10</sup>

**Soya in my opinion still remains a healthy addition to any diet!**

### **How to take soya:**

Besides eating soya products there are also supplements on the market that contain the extracted soya isoflavones genistein, daidzein and glycitein which may prove useful in maintaining your bone density.

**At my age the bones are water in the morning until food is given them.  
Pearl Buck (1892 - 1973)**

## But what about dairy then?

Dairy remains a controversial topic. Although I dealt extensively with dairy in sessions 19 & 20, let me give you a summary:

According to research dairy definitely is a good source of calcium but with modern farming methods it has become a risky food to consume.

**Problems that arise from high dairy consumption, to mention only a few, are:**

- Problems associated with lactose intolerance<sup>11</sup>
- Acne<sup>12</sup>
- Eczema and other allergy-type skin conditions<sup>13, 15</sup>
- Recurrent airway infections in adults and children<sup>14</sup>
- Asthma is also controlled much better in the absence of bovine dairy<sup>15</sup>
- Children who are lactose intolerant can suffer from constipation<sup>15</sup>, vomiting<sup>15</sup>, intestinal colic<sup>15</sup>, and chronic diarrhoea<sup>14</sup>.
- Diabetes risk<sup>16,17</sup>
- Worsening of rheumatoid arthritis and other arthritic conditions<sup>18</sup>



### The exception?

The exception is raw, unpasteurised dairy that is properly tested for contaminants.<sup>19</sup>

If you are fortunate enough to have access to this variety of dairy then you have a good source of calcium.

## Step 4: Correct supplementation

**According to the Life Extension Foundation the following combination of micronutrients are all essential for healthy bones.<sup>20</sup>**

- Calcium: 1200mg daily (see the next mentor session)
- Magnesium: 600mg elemental daily (see the next mentor session)
- Vitamin D: 500 – 8000IU daily (see the next mentor session)
- Vitamin K: 2100 mcg of vitamin K as 1000 mcg K1 and 1100 mcg K2.
- Boron: 3mg daily
- Zinc: 2mg daily
- Vitamin C: 1000mg – 3000mg daily
- Vitamin E: 400IU daily
- Vitamin B12: 300 – 1200mcg daily
- Folic acid: 800 – 3000mcg daily
- Bioflavonoids - found in green tea, onions, garlic, peppers and varieties of berries.

**Note:** Calcium may increase risk for heart disease when taken without magnesium and vitamin D and K!!



## Step 5: Hormones

It's a really good idea to have your hormone profile looked at by a doctor who understands this.

We are generally seeing more and more hormonal abnormalities in people over 50 years old. Male and female hormones play a **CRUCIAL** role in bone metabolism.

Take note that when it comes to conventional hormone replacement therapy some really large trials have shown us that the risks may outweigh the benefits of using these strong synthetic estrogens.

My advice is that you start with a natural progesterone cream which is widely available in health shops. If you need more than that you need to see a medical doctor who understands hormone modulation (this would include natural progesterone and estrogen creams and oral supplements like DHEA and pregnenolone).

For the guys the problem with low bone density can lie in testosterone levels that are too low. I would strongly advise any man over 50 years of age to have a series of blood tests done to see what his hormone profile is and if he needs hormone modulation.



### **About bisphosphonates (bone density medication):**

Due to several side effects associated with these drugs it's my advice that you try to manage your bone density for as long as possible using the more conservative natural approach outlined in these sessions. Keep your attending physician involved, though, that if you need to use this medication that you do so under proper supervision.

**In the next session we'll look at the information chaos surrounding calcium and I'll show you exactly what type of calcium you should use and how to combine it with magnesium, vitamin K and vitamin D.**

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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 and has a master's degree in Applied Human Nutrition.

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'. Dr Anton is no stranger to radio and has been able to guide scores of listeners with his passion for wellness education.

Dr Anton is an established public speaker and is also a wellness coach to company executives. He specialises in motivating people to adopt healthier habits through well researched lifestyle and food approaches.

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