

## CERTIFIED ADVANCED HERBALISM COURSE - SESSION 4: Minerals

- **MINERALS**
- **CALCIUM (Ca)**
- **IRON (Fe)**
- **IODINE (I)**
- **MAGNESIUM (Mg)**
- **PHOSPHORUS (Ph)**
- **ZINK (Zn)**

### Minerals:

Minerals are essential for the normal functioning of the body and are generally provided by a normal healthy diet. However, occasionally serious problems can occur with the body if a few essential minerals are lacking. Minerals can be found in abundant quantities in fruit and vegetables, and to a lesser extent in meat and eggs. Table salt is a combination of two minerals, Nitrate and Calcium, and is very important for good health. Salt is extracted from the body through the kidneys, stomach acids, tears and sweat. Without salt, the body would not be able to retain the water needed for the normal functioning.

### Calcium:

This mineral is important for the healthy growth of bones and teeth. It helps maximize bone density in teenagers, relieves leg cramps and may reduce symptoms of post menstrual syndrome.

#### Top 5 sources of Calcium:

1. Edam cheese - 770mg per 100g
2. Cheddar cheese - 720mg per 100g
3. Sesame seeds - 670 mg per 100g
4. Sardines in oil - 550mg per 100g
5. Dried figs - 250mg per 100g

**RDA (EU) - 800mg (1g=1 000mg)**

**RDA (USA) - 800mg (1g=1 000mg)**

The RDA for Calcium is the equivalent to a small tin of sardines with bones, plus half a pint of semi-skimmed milk.

### Iron:

This mineral is vital for production of red blood cells, which are responsible for carrying oxygen around the body. It also reduces tiredness and fatigue, improves concentration and restores skin tone.

#### Top 5 sources of Iron:

1. Bran flakes - 20mg per 100g
2. All bran - 12mg per 100g
3. Sesame seeds - 10.4mg per 100g
4. Roast venison - 7.8g per 100g
5. Dried apricots - 3.4mg per 100g

**RDA (EU) - 14mg (1g=1 000mg)**

**RDA (USA) - 10mg - 30mg, 18mg for pregnant women (1g=1 000mg)**

The RDA for Iron is the equivalent to one bowl of iron-fortified breakfast cereal.

## **Iodine:**

This mineral is required for proper functioning of the thyroid gland. It may also relieve painful breasts (e.g. during breast feeding) and reduce the risk of breast cancer.

### **Top 5 sources of Iodine:**

1. Haddock - 250µg per 100g
2. Smoked mackerel - 150µg per 100g
3. Mussels - 120µg per 100g
4. Cod - 110µg per 100g
5. Lobster - 100µg per 100g

**RDA (EU) - 150µg (1g = 1 000 000µg)**

**RDA (USA) - 150µg (1g = 1 000 000µg)**

The RDA for Iodine is the equivalent to 100g of mackerel.

## **Magnesium:**

This mineral gives strength to bones. It is also needed to release energy from food and to carry nerve impulses between the nervous system and muscles. It also lowers the risk of heart disease and relieves pre-menstrual headaches.

### **Top 5 sources of Magnesium:**

1. Cocoa powder - 520mg per 100g
2. Sunflower seeds - 390mg per 100g
3. Pumpkin seeds - 270mg per 100g
4. All bran - 210mg per 100g
5. Mixed nuts - 200mg per 100g

**RDA (EU) - 300mg (1g=1 000mg)**

**RDA (USA) - 350mg (1g=1 000mg)**

The RDA for Magnesium is the equivalent of:

- one pint of milk
- or a serving of cod with spinach
- or a handful of peanuts, and four slices of bread

## **Phosphorus:**

This mineral is required for the proper operation of the bodily functions, energy production and together with calcium and magnesium is responsible for maintaining healthy teeth and bones. It may also improve fracture healing and reduce tiredness in people with diabetes.

### **Top 5 sources of Phosphorus:**

1. Cheese - 490mg per 100g
2. Liver - 470mg per 100g
3. Prawns - 350mg per 100g
4. Mussels - 330mg per 100g
5. Lobster - 280mg per 100g

**RDA (EU) - 800mg (1g=1 000mg)**

**RDA (USA) - 300mg-400mg (1g=1 000mg)**

The RDA for Phosphorus is the equivalent to a pint of milk and a cheddar sandwich.

**Zinc:**

This mineral is important for the development of a healthy immune system. It is also required for growth and development of the body, including the reproductive organs. Zinc is also good for prevention and treatment of colds and is essential for proper cell maintenance.

**Top 5 sources of Zinc:**

1. Oysters - 59.2mg per100g
2. Wheat germ - 17mg per 100g
3. Calf's liver 7.8mg per 100g
4. Pumpkin seeds - 6.6mg per 100g
5. Roast beef - 5.5mg per 100g

**RDA (EU) - 15mg (1g=1 000mg)**

**RDA (USA) - 15mg (1g=1 000mg)**

The RDA for Zinc is the equivalent to 200g of grilled calf's liver.

## CERTIFIED ADVANCED HERBALISM COURSE - SESSION 4 – QUESTION & ANSWERS

NAME: \_\_\_\_\_

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Please be sure to fill out the information above, complete the test and e-mail or fax it back to us at 425-955-4639 (US) or at +353 1 647 5705 (EU) or e-mail it to us at [joyful@best.com](mailto:joyful@best.com) (US) or at [answers@med-herbs.com](mailto:answers@med-herbs.com) (EU). We will grade your question & answer session and will let you know if we have any questions or concerns.

1. Table salt is a combination of which two minerals?

2. What are the benefits of Calcium for our body?

3. List the top 5 sources of Iron.

4. What is the RDA for Iodine?

5. List the top 5 sources of Magnesium.

6. What are the benefits of Phosphorus for our body?

7. List the top 5 sources of Zinc.