

# Support Your Bones with Healthy Habits

While genetic factors play a significant role in determining bone mass, controllable lifestyle factors such as nutrition and physical activity can make the difference between a frail and strong skeleton.

## Bone Builders

Eat a diet rich in foods that contain adequate amounts of following nutrients that support bone health:

### CALCIUM (Ca)

RECOMMENDED INTAKE

ADULTS 1000-1200 MG/DAY

|                             | servicing | Calcium    |
|-----------------------------|-----------|------------|
| Soy Milk                    | 1 cup     | 200-400mg  |
| Sardines bones              | 3.5 oz    | 300mg      |
| Sesame seeds, ground, whole | 3 tbs     | 300mg      |
| Almonds                     | 1 cup     | 300mg      |
| Milk; skim                  | 1 cup     | 300mg      |
| Cheese                      | 1.5oz     | 300mg      |
| Yogurt, nonfat              | 1 cup     | 294mg      |
| Sea Vegetables              | 1/2 cup   | 152-283mg  |
| Bok choy                    | 1 cup     | 200mg      |
| Kale                        | 1 cup     | 179mg      |
| Broccoli                    | 1 cup     | 150mg      |
| Chick peas(cooked)          | 1 cup     | 150mg      |
| Tofu                        | 4oz       | 80 – 150mg |
| Molasses                    | 1 tbs     | 137mg      |
| Parsley (raw)               | 1 cup     | 122mg      |
| Corn tortillas              | 2         | 120mg      |

### VITAMIN D

RECOMMENDED INTAKE

ADULTS >51YR 400-600 IU/DAY

|                   | servicing      | Vitamin D |
|-------------------|----------------|-----------|
| Sunshine          | 1 hour a week! |           |
| Salmon            | 3oz            | 426IU     |
| Shitake Mushrooms | 11/2 oz        | 260IU     |
| Yogurt, nonfat    | 1 cup          | 100IU     |
| Sardines          | 1oz            | 95IU      |
| Milk, fortified   | 1 cup          | 85IU      |
| Chocolate         | 1oz            | 65IU      |
| Egg               | 1              | 30IU      |

### VITAMIN K

RECOMMENDED INTAKE

>30YR MEN 120 MG/DAY

>30YR WOMEN 90 MG/DAY

|                  | servicing | Vitamin K |
|------------------|-----------|-----------|
| Collard          | 1/2 cup   | 370mg     |
| Brussels sprouts | 1/2 cup   | 230mg     |
| Green tea,       | 1oz       | 199mg     |
| Romaine Lettuce  | 1 1/2 cup | 190mg     |
| Broccoli         | 1 1/2 cup | 90mg      |
| Chickpeas        | 1oz       | 74mg      |
| Cabbage          | 1/2 cup   | 63mg      |
| Strawberries     | 1 cup     | 21mg      |
| Canola Oil       | 1 tbs     | 20mg      |

### IRON (FE)

RECOMMENDED INTAKE

MEN & POSTMENAPAUASAL

WOMEN 8 MG/DAY

PREMENOPAUASAL WOMEN 18 MG/DAY

|                    | servicing | Iron  |
|--------------------|-----------|-------|
| Raisin Bran Cereal | 1 cup     | 18mg  |
| Spinach Raw        | 1 cup     | 0.8mg |

### POTASSIUM (K)

RECOMMENDED INTAKE

1,600 – 3,500 MG/DAY

|         | servicing | Potassium |
|---------|-----------|-----------|
| Raisins | 1 cup     | 1082mg    |
| Potato  | 1 small   | 716mg     |
| Banana  | 1 medium  | 422mg     |
| 1% milk | 1 cup     | 366mg     |
| Tomato  | 1 medium  | 235mg     |

## MAGNESIUM (Mg)

### RECOMMENDED INTAKE

>30YR MEN 420 MG/DAY

>30YR WOMEN 320 MG/DAY

|                    | <b>serving</b> | <b>Magnesium</b> |
|--------------------|----------------|------------------|
| Tofu               | ½ cup          | 118mg            |
| Wheat germ         | ¼ cup          | 115mg            |
| Raisin bran cereal | 2oz            | 96mg             |
| Halibut            | 3oz            | 78mg             |
| Chocolate chips    | ¼ cup          | 58mg             |
| Kelp               | 1oz            | 55mg             |
| Molasses           | 1 tbs          | 52mg             |
| WW Bread           | 1 slice        | 26mg             |

## PHOSPHORUS (PHOS)

### RECOMMENDED INTAKE

>30YR MEN/WOMEN 700 MG/DAY

|               | <b>serving</b> | <b>Phos</b> |
|---------------|----------------|-------------|
| Sardines      | 3oz            | 424mg       |
| Yogurt, plain | 8oz            | 326mg       |
| Salmon        | 3oz            | 167mg       |
| Egg           | 1 large        | 90mg        |
| WW bread      | 1 slice        | 47mg        |
| Pinto beans   | 1/2 cup        | 43mg        |

## VITAMIN C

### RECOMMENDED INTAKE

>30YR MEN 90 MG/DAY

>30YR WOMEN 75 MG/DAY

|              | <b>serving</b> | <b>Vitamin C</b> |
|--------------|----------------|------------------|
| Broccoli     | 1 cup          | 97mg             |
| Red pepper   | 1 med          | 95mg             |
| Strawberries | 1 cup          | 84mg             |
| Kiwi         | 1 small        | 74mg             |
| Orange       | 1 med          | 70mg             |
| Asparagus    | 1 cup          | 49mg             |
| Grapefruit   | 1 med          | 41mg             |

## PROTEIN

|               | <b>serving</b> | <b>Protein</b> |
|---------------|----------------|----------------|
| Turkey        | 3oz            | 25g            |
| Salmon        | 3oz            | 21g            |
| Almonds       | ½ cup          | 14g            |
| Yogurt, plain | 8oz            | 12g            |
| Peas, dried   | ½ cup          | 8g             |
| Pinto beans   | ½ cup          | 8g             |
| Tofu          | 3oz            | 7g             |
| Egg           | 1 large        | 6g             |

## COPPER

### RECOMMENDED INTAKE

>30YR MEN/WOMEN 900 MG/DAY

|                 | <b>serving</b> | <b>Copper</b> |
|-----------------|----------------|---------------|
| Cashews         | ¼ cup          | 0.8mg         |
| Molasses        | 2 tbs          | 0.6mg         |
| Sunflower seeds | ¼ cup          | 0.6mg         |
| Tofu            | ½ cup          | 0.5mg         |
| Chocolate chips | ¼ cup          | 0.5mg         |
| Salmon          | 3oz            | 0.3mg         |
| Tahini          | 1 tbs          | 0.2mg         |

## ESSENTIAL FATS

|                    | <b>serving</b> | <b>Omega 3</b> |
|--------------------|----------------|----------------|
| Flax oil           | 1 tbs          | 6.9g           |
| Flax seed          | 2 tbs          | 4.3g           |
| Tuna, canned       | 1 can          | 3.4g           |
| Walnuts            | ¾ cup          | 3.3g           |
| Mackerel (pacific) | 3.5oz          | 2.2g           |
| Soy nuts, roasted  | ¾ cup          | 1.7g           |
| Salmon             | 3.5oz          | 1.4g           |
| Canola Oil         | 1 tbs          | 1.3g           |
| Tofu               | ½ cup          | 0.4g           |

## PREBIOTICS

Inulin in 100g

|                        |       |
|------------------------|-------|
| Dandelion greens (raw) | 13.5g |
| Banana                 | 5.0g  |
| Globe artichoke        | 4.4g  |
| Onions                 | 4.3g  |
| Asparagus              | 2.5g  |
| Chicory root           | 1.6g  |

## PHYTOESTROGENS/ISOFLAVONES (SOY)

Flax seed  
Tofu  
Miso  
Tempeh

## ZINC

### RECOMMENDED INTAKE

>19 MEN 11 MG/DAY

>19 WOMEN 8 MG/DAY

|                    | <b>serving</b> | <b>Zinc</b> |
|--------------------|----------------|-------------|
| Raisin Bran Cereal | 1 cup          | 15mg        |
| Beans Kidney       | 1 cup          | 5.13mg      |
| Walnuts, dried     | 1 oz           | .96mg       |

## **Bone Reducers**

- **Avoid excessive amounts of the retinol form of Vitamin A, since it may increase the breakdown of our bones and interfere with Vitamin D, which we need to help us absorb calcium. Retinol sources include animal-source foods such as liver, egg yolks, cheese, and milk. Dietary supplements and some acne preparations also contain retinol. RDAs for Vitamin A are 3,000 IU for Men and 2330IU for Women where daily intakes over 10,000 IU of the retinol form of Vitamin A are not recommended.**
- **Limit your salt intake to <2000 mg/day by avoiding table salt, and processed foods.**
- **Limit caffeine intake to about 4 cups a day. This includes tea, colas, and certain other sodas.**
- **Limit your intake of alcohol to 1 glass/day for women and 2 glasses/day for men.**
- **Avoid high protein low carbohydrate diet such as “Atkins Diet”.**
- **Avoid supplements made from calcium phosphate.**
- **Avoid antacids containing aluminum.**

## **Maintain a Healthy Lifestyle**

- **Do weight-bearing and resistance exercises for 30 to 45 minutes at least three times a week.**
- **Always select calcium supplement brand that also contains at least 400 IU of Vitamin D, depending on your level of risk.**
- **Calcium Citrate supplement such as Citracal is more readily absorbed than Calcium Carbonate supplement or Tums.**
- **Our body cannot absorb large doses of calcium (500 mg) at once; so spread your calcium consumption of both food and supplements over the day.**
- **Take all calcium supplements separate from Thyroid medication and Iron supplements.**
- **Do not smoke. Some studies have shown that smoking increases the risk of developing osteoporosis by 50%.**
- **Talk to your healthcare professional about bone health; and Bone density testing and medications when appropriate.**

## Terms associated with bone health

**Bone Remodeling:** Bone resorption and bone formation, a dynamic, normal process.

**Mineralization:** ability of bone to absorb and hold on to minerals, calcium, magnesium, sodium and phosphate

**Osteomalacia:** Adult rickets caused by vitamin D deficiency and low absorption of calcium

**Osteopenia:** reduced bone mass at any stage of life but the remaining bone has normal mineralization

**Osteoporosis:** general loss of bone mass with insufficient protein and collagen, reduced flexibility and reduced strength. Risk of fracture increases.

**Resorption:** 2 weeks, osteoclasts clear calcium from bone stores and (bone to blood)

**Rebuilding:** Rebuilding of the osteoblast (blood to bone) is much slower, 3-6 months.