Strategy to Ease Life with RMDs
Vitamins & Food Intolerance

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Vitamin D

Role:

- Bone strength & health
- Neuromuscular & immune function
- Reduction of inflammation



Vitamin D



- Cutaneous synthesis (80%)
  - Formed in the skin through exposure to sunlight
  - Season, time of day, length of day, cloud cover, smog, skin melanin content, and sunscreen
- Daily intake with foods (10-20%)
  - Fish
  - Eggs yolk
  - Mushrooms



Vitamin D



- 25 (OH) vit D levels
  - >30-50ng/ml - optimal concentration
- Supplementation depends on:
  - age, sex, renal function, BIM
  - current supplementation
  - comorbidities, living standards, mobility
- Daily – weekly – monthly intake



"For low vitamin D, I'd recommend supplements, not sunshine."

Calcium

- Role:
  - Bones and teeth strength
  - Muscles contraction
  - Hormones regulation
  - Blood pressure control
- Daily needs: 1000 - 1200 mg
- Calcium-rich foods:
  - milk, cheese, yogurt
  - almonds and chia seeds





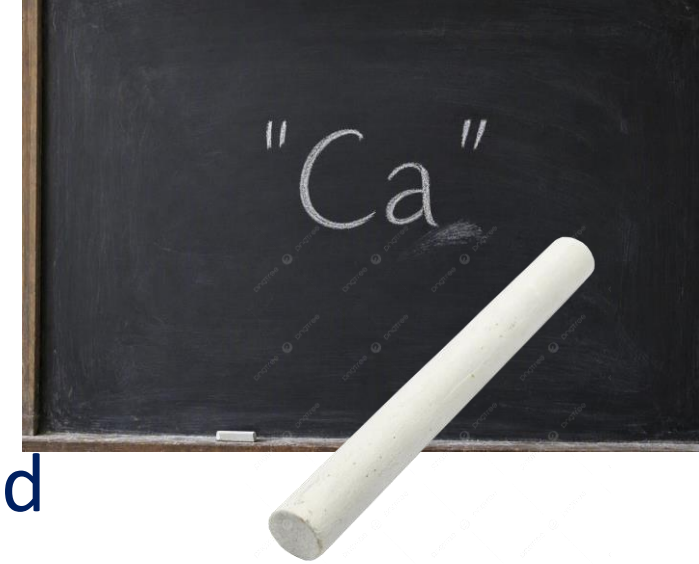








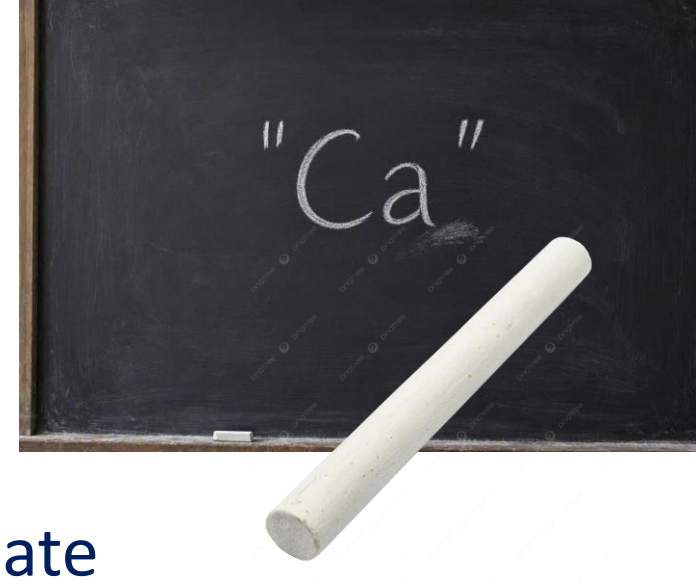
Calcium



- Calcium supplements should be taken with food
- Soda & other fizzy drinks makes it harder for your body to absorb calcium
- Mg, vit D, vit K – improve absorption and use in body
- Mind sodium and animal protein intake
- Coffee!!!



Calcium

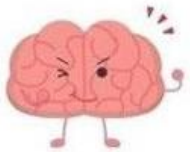


- Eggshells:
  - highly concentrated natural source calcium carbonate




Mg

Which Form Should We Choose?



THREONATE
to improve brain function



CITRATE
to increase bowel movement



CITRATE & SULFATE
to help with muscle relaxation



GLYCINATE
to improve sleep



MALATE
to improve energy and muscle pain



Vitamin E

Potent antioxidant:

- better quality of life
- reduced joint discomfort, swelling and stiffness
- a healthier gastrointestinal tract

Vitamin-E-rich foods:

- Nuts - peanuts, hazelnuts and almonds
- Sunflower products, such as seeds, butter and oil
- Spinach, broccoli, kiwis, mangoes, tomatoes
- Vitamin E supplement







Folic Acid



Folic Acid

benefits:

- helps prevent birth defects
- promotes heart health
- natural depression remedy
- reduces risk of Alzheimer's
- helps breakdown triglycerides
- decreases risk of colon cancer
- may lower homocysteine levels











What else?





Body Weight Control

- Major health problem
- Risk factor for many chronic health conditions, including RMD



Insulin Resistance

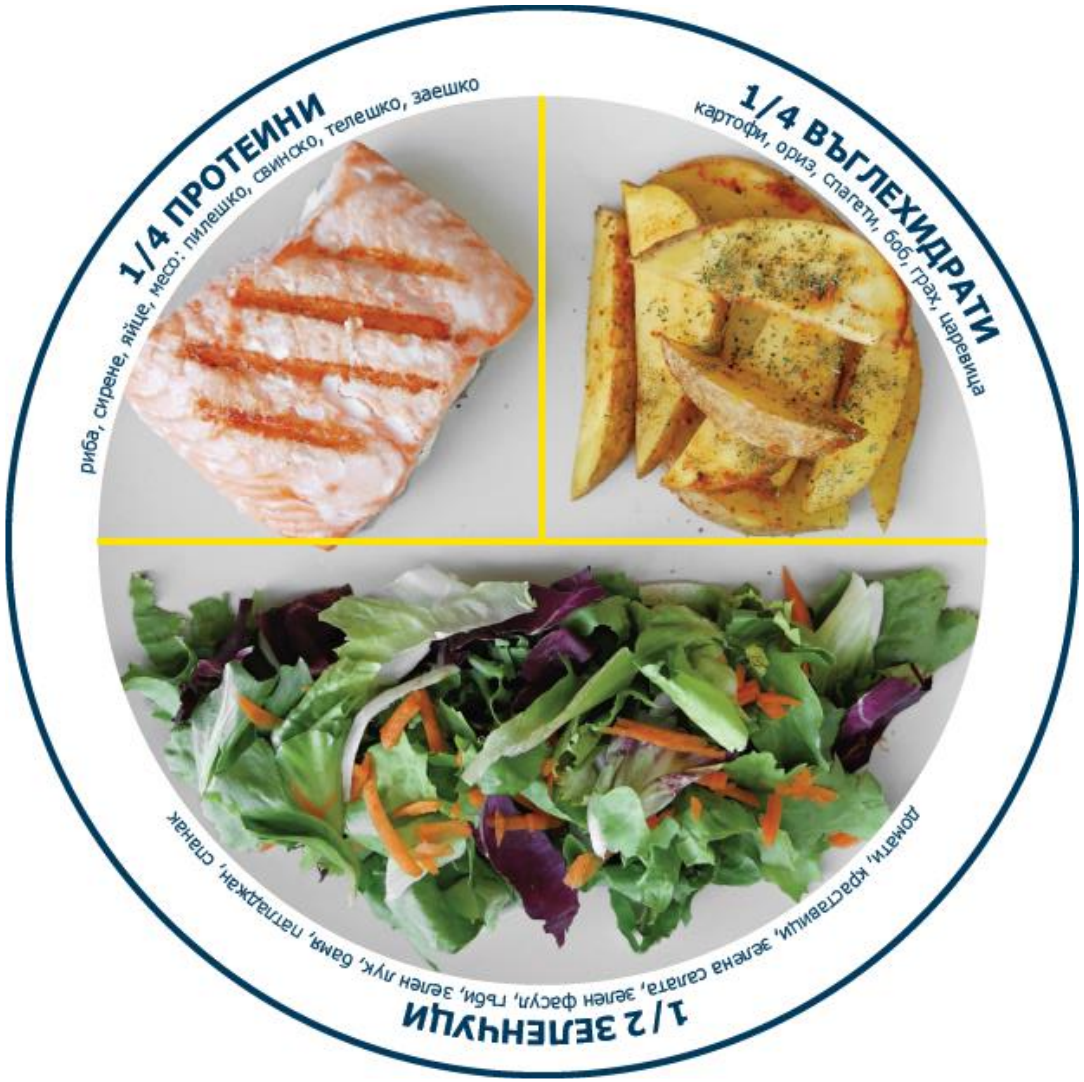
HOMA IRI

(Fasting blood glucose x Fasting IRI)/22.5 ≤ 2.5

- Acrochordons
- Acanthosis nigricans
- Excessive hair growth in females
- High blood pressure
- Excess weight, especially around the waistline

Healthy Nutrition

- Protein and fat do not affect blood sugar, but they can increase body weight
- Avoid excessive consumption of nuts, as they are high in calories
- Stop smoking



Healthy Nutrition

- Limit fats and alcohol consumption
- Avoid fast sugars and honey
- Remove visible fat and skin from meat. Cook it without fat in the oven, on the grill or boil it
- Prefer fresh fruit to juice
- Include raw and/or cooked vegetables at every meal

Healthy Nutrition

- For breakfast - eat vegetables, olives, milk, dairy and meat products
- For lunch - choose dishes with beans, lentils, peas, potatoes, rice, spaghetti, combined with more vegetables. Reduce or completely eliminate bread in these cases
- Use yogurt and dairy products as a supplement to lean dishes
- Include fruit as a snack between lunch and dinner, not as a dessert
- Two to three times a week you can replace afternoon snack with chocolate, cake, ice cream or nuts within the recommended amounts
- For dinner - combine whole grain bread and vegetables with meat, fish, eggs, dairy products and milk
- Avoid eating before bedtime

„Fast“ sugar

Кристална захар
65 GI, 12 г, 50 kcal



1 равна с. л.

Захар бучки
65 GI, 12 г, 50 kcal



4 бучки

Захар пакетчета
65 GI, 12 г, 50 kcal



3 пакетчета

Глюкоза
100 GI, 12 г, 50 kcal



1 равна с. л.

Бонбони
75 GI, 15 г, 60 kcal



2 бонбона

Мед
72 GI, 15 г, 50 kcal



1 равна с. л.

Напитка със захар
78 GI, 150 г, 65 kcal



1/2 чаша

Локум
15 г, 52 kcal



1 брой

Мармалад
51 GI, 25 г, 55 kcal



1 равна с. л.



Slow Carbs

Пълнозърнест хляб 49 GI*, 30 г, 60 kcal	**Бял хляб** 75 GI, 25 г, 60 kcal	**Геврек** 62 GI, 20 г, 60 kcal	**Сухар** 70 GI, 15 г, 65 kcal	**Бейкролс **** 65 GI, 20 г, 95 kcal	**Кроасан **** 67 GI, 30 г, 135 kcal	**Солети** 70 GI, 20 г, 65 kcal	**Пържени картофи **** 63 GI, 30 г, 100 kcal
							
1 филийка	**1/2** филийка	**1/4** геврек	**2** сухара	**4** рулца	**2** малки; **1/2** голям	**17** солети	**12** резенчета

Варен ориз късозърнест 72 GI, 50 г, 55 kcal	**Варен ориз** дългозърнест 44 GI, 50 г, 55 kcal	**Пуканки **** 70 GI, 20 г, 95 kcal	**Брашно, нишесте** 75 GI, 15 г, 50 kcal	**Овесени ядки** 56 GI, 20 г, 75 kcal	**Корн флейкс** 83 GI, 15 г, 55 kcal	**Картофено пюре** 83 GI, 70 г, 90 kcal	**Варен картоф** 73 GI, 75 г, 55 kcal
							
2 пълни с. л.	**2** пълни с. л.	**15** пълни с. л.	**1** пълна с. л.	**2** пълни с. л.	**2** пълни с. л.	**2** пълни с. л.	**1** картоф

Legumes, Pasta

Варен зрял фасул
29 GI, 50 г, 65 kcal



3 пълни с. л.

Леща
30 GI, 50 г, 65 kcal



2 пълни с. л.

Елда /гречка/
49 GI, 50 г, 65 kcal



2 пълни с. л.

Варени макарони
46 GI, 50 г, 55 kcal



4 пълни с. л.

Спагети
38 GI, 50 г, 55 kcal



2 пълни с. л.

Варени кестени
65 GI, 40 г, 55 kcal



3 кестена

Грах
47 GI, 130 г, 80 kcal



7 пълни с. л.

Варена царевица
60 GI, 80 г, 70 kcal



3 пълни с. л.

Fruits

Ябълка
38 GI, 100 г, 60 kcal



1 малка

Круша
38 GI, 100 г, 60 kcal



1 малка

Праскова
42 GI, 140 г, 50 kcal



1 средно голяма

Диня
76 GI, 200 г, 55 kcal



2 средни парчета

Къпини
34 GI, 140 г, 40 kcal



2/3 чаена чаша

Сини сливи
39 GI, 80 г, 50 kcal



4 броя

Грозде
46 GI, 70 г, 50 kcal



10 големи зърна

Банан
56 GI, 60 г, 55 kcal



1/2 средно голям

Пъпеш
65 GI, 200 г, 60 kcal



1 резен

Смокини
61 GI, 70 г, 55 kcal



1 голяма

Ягоди
40 GI, 180 г, 65 kcal



10 средно големи

Малини
36 GI, 170 г, 65 kcal



1 чаена чаша

Кайсии
57 GI, 120 г, 55 kcal



3 малки

Череши/Вишни
22 GI, 100 г, 60 kcal



10/15 броя

Черни боровинки
50 GI, 90 г, 55 kcal



1/2 чаена чаша

Мандарини
45 GI, 150 г, 55 kcal



2 малки

Портокал
43 GI, 130 г, 55 kcal



1 малък

Грейпфрут
25 GI, 150 г, 50 kcal



1/2 голям

Киви
47 GI, 150 г, 60 kcal



1 1/2 средно голямо

Juices

Сок от домати
32 GI, 300 г, 50 kcal



1 1/2 чаша

Сок от моркови
43 GI, 200 г, 40 kcal



1 чаша

Сок натурален
52 GI, 100 г, 50 kcal



1/2 чаша

Milk

Прясно мляко 3,6%
30 GI, 250 г, 165 kcal



1 чаша

Кисело мляко 2%
14 GI, 240 г, 123 kcal



1/2 кофичка

Соево мляко
34 GI, 600 г, 259 kcal



3 чаши

Плодово мляко
36 GI, 100 г, 100 kcal



1/3 кофичка

Сладолед **
44 GI, 50 г, 95 kcal



1 брой

Шоколад **
43 GI, 30 г, 170 kcal



1/3 шоколад

Vegetables





Obesity Treatment and RMDs

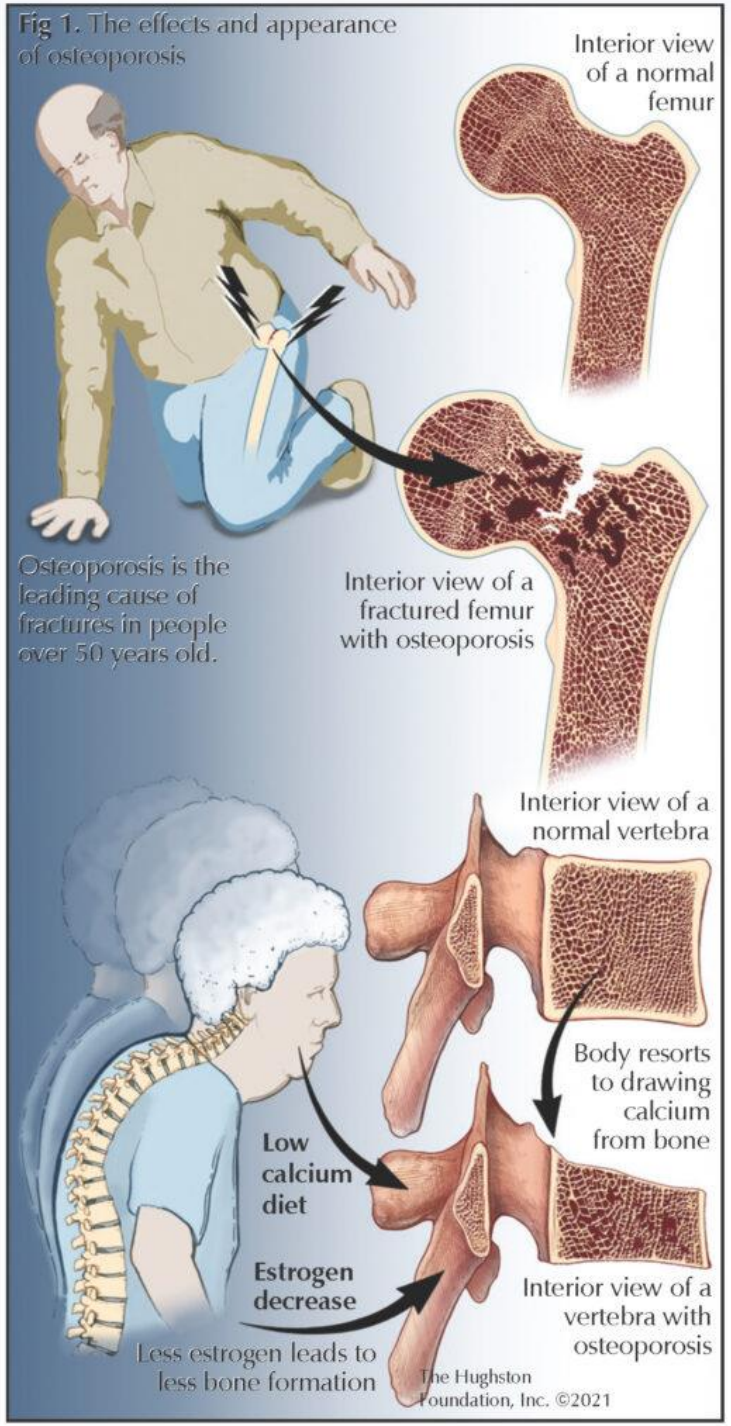
- Metformin
- GLP-1 RA & GLP-1/GIP

- No interaction with drugs through the CYP enzyme system or transporter mechanisms
- Gastrointestinal side effects (nausea, vomiting, diarrhea, constipation), especially during the dose titration period
- Delayed gastric emptying, which could potentially affect the absorption of concomitant oral drugs
- Increased risk of hypoglycemia when used with sulfonylureas or insulin
- Monitoring of body weight, glycemic control, and therapy tolerance according to routine clinical practice
- No need to adjust the dose of biological therapy when starting treatment

Osteoporosis

Systemic skeletal disorder characterized by:

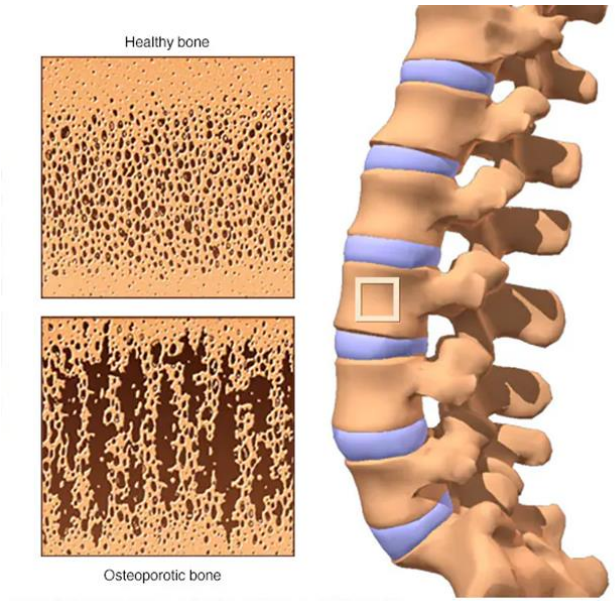
- low bone mass
- micro-architectural deterioration of bone tissue leading to more porous bone
- and consequent increase in fracture risk



Osteoporosis

Symptoms

- Back pain caused by a broken or collapsed bone in the spine
- Loss of height over time
- A stooped posture
- A bone that breaks much more easily than expected



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Osteoporosis

Causes & Risk Factors

- Risks you can't change:
  - Sex assigned at birth, age, race, family history, body frame size
- Dietary factors:
  - Low calcium intake, eating disorders, gastrointestinal surgery
- Lifestyle choices:
  - Sedentary lifestyle, excessive alcohol use, tobacco use

Osteoporosis

Causes & Risk Factors

- Hormone levels
  - Sex hormones
  - Thyroid hormone
  - Hormones from other glands - parathyroid and adrenal glands
- Steroids and other medicines
  - corticosteroid medicines
  - medicines used to combat or prevent seizures, gastric reflux, cancer, transplant rejection
- Medical conditions
  - Celiac disease, Inflammatory bowel disease
  - Kidney or liver disease
  - Cancer, multiple myeloma
  - Rheumatoid arthritis

Screening and Diagnosing Bone Health and Osteoporosis



Osteoporosis

Complications

- Bone breaks, particularly in the spine or hip - the most serious complications of osteoporosis
  - Hip fractures often are caused by a fall
  - Broken bones in the spine can occur even if you haven't fallen
- This can result in back pain, lost height and a hunched posture

Osteoporosis

Prevention

- Exercise
- Healthy lifestyle
  - Don't smoke
  - Limit alcohol
  - Prevent falls
- Calcium
- Vitamin D

Osteoporosis

Treatment

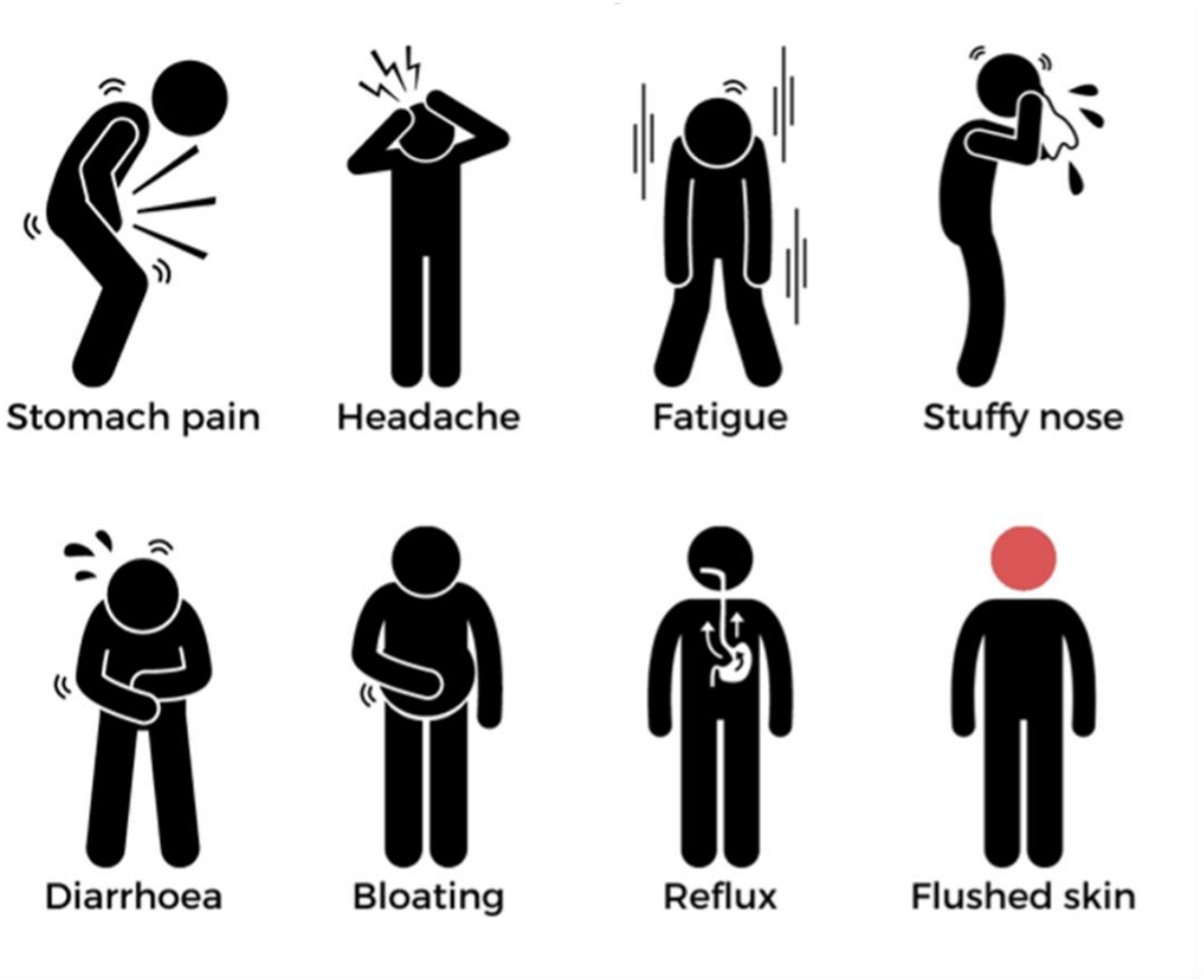
- Bisphosphonates
  - first-line anti-resorptives causing osteoclast apoptosis
- Denosumab
  - RANKL inhibitor for reduced bone resorption, useful in renal failure
- SERMs like raloxifene
  - reduces vertebral fractures and breast cancer risk
- PTH analogs
  - anabolic agents stimulating bone formation
- Sclerostin inhibitors
  - enhance osteoblast activity

Food allergy vs. Food intolerance/sensitivity

- Food allergy
  - an immune system reaction to certain foods
  - can cause a life-threatening reaction known as anaphylaxis
- Food intolerance, or food sensitivity
  - common digestive tract issue
  - don’t involve your immune system
  - not life-threatening but inconvenient and affecting life

Food intolerance/sensitivity Symptoms

- Bloating
- Diarrhea
- Rashes
- Headaches
- Muscle and joint pain
- Nausea
- Fatigue
- Abdominal pain
- Runny nose
- Reflux
- Flushing of the skin



Most Common Food Intolerances

- Gluten
- Diary
- Caffeine
- FODMAPs

"Let food be thy medicine
and
medicine be thy food"

"Est modus in rebus"

"moderation in all things"