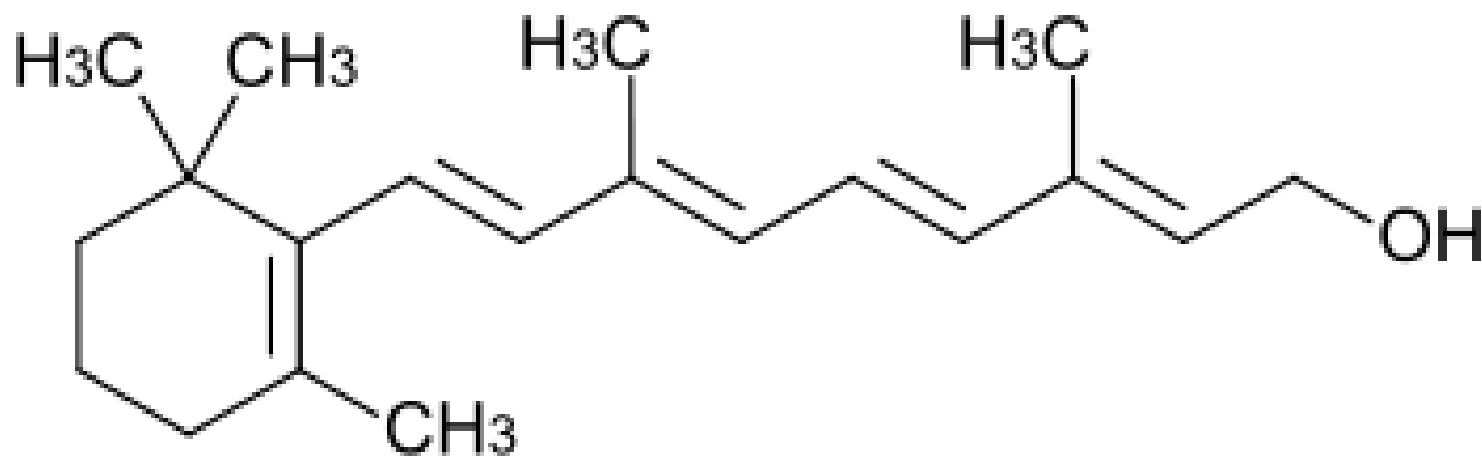




Vitamins

- Complex organic (carbon based) molecules (or “biomolecules”) that we need to eat in **small amounts** (~0.2 grams per day)
- Lack of a vitamin causes health problems

Example: Vitamin A (retinol)



Vitamins (cont.)

Two types:

- Water soluble (B vitamins, vitamin C)
 - Should eat these every day
- Fat Soluble (A, D, E, K)
 - Stored in fat
 - Don't eat megadoses of these – it can poison you

Minerals

- Elements your body needs in small amounts
- 2 types:
 - Macrominerals (need 5 g or more in body)
 - Na, K, Ca, Mg, S, Cl, P
 - Trace minerals (need under 5 g in body)
 - Fe, Zn, Cu, I, Ni, Se, Mo, Mn, F, Co, and others

RDA: Definition & Two Equations

- Recommended Dietary Allowance;
recommended amount in diet each day

$$\frac{\text{RDA}}{\text{Amount in 1 serving}} = \# \text{ of servings needed to get RDA}$$

$$\frac{\text{Amount in 1 serving}}{\text{RDA}} = \% \text{ of RDA in one serving}$$

Example RDA Question 1:

- What percent of your vitamin C RDA does one apple provide?
 - Apple has 5.7 mg of vitamin C
 - RDA for vitamin C is 60 mg

Answer:

$5.7 \text{ mg} / 60 \text{ mg} = 9.5\%$ of RDA for Vit C

Example RDA Question 2:

- How many apples does it take to get 100% of your RDA for vitamin C? (~10.5)
 - Apple has 5.7 mg of vitamin C
 - RDA for vitamin C is 60 mg

Answer:

$$60 \text{ mg} / 5.7 \text{ mg} = 10.5 \text{ apples}$$