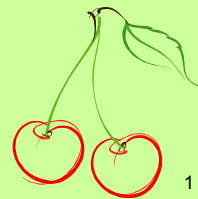


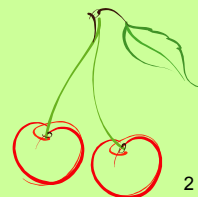
Fresh, Frozen, Canned and Dried – Why They All Work

Carolyn Raab, Ph.D., R.D., L.D.
OSU Extension Service



Whether they're frozen, fresh,
canned, or dried, all fruits and
vegetables (including beans) count
toward your daily amount.

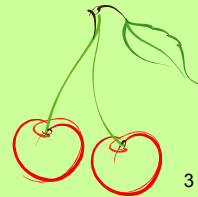
Source: CDC



Fruit Equivalents...

- 1 medium piece
- $\frac{1}{2}$ cup cut-up raw or cooked
- $\frac{1}{4}$ cup dried
- $\frac{1}{2}$ cup 100% fruit juice

Source: CDC

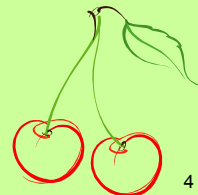


3

Vegetable Equivalents...

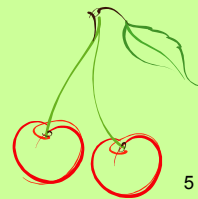
- $\frac{1}{2}$ cup cut-up raw or cooked
- $\frac{1}{2}$ cup cooked dry beans or peas
- 1 cup leafy salad greens
- $\frac{1}{2}$ cup 100% vegetable juice

Source: CDC



4

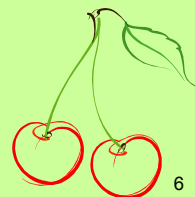
- All forms count
- Nutrient dense forms count more



5

Fruits & Veggies – More Matters™ Brand Guidelines

- Not too much added sugar/caloric sweeteners
- Not too much fat
- Not too much sodium
- Not too little fiber

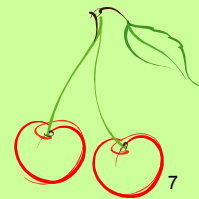


6



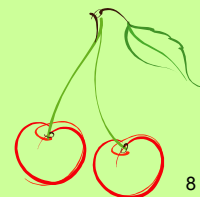
Nutrient-dense foods are at the bottom.

Choose more foods from the bottom.



Eat at the bottom of MyPyramid

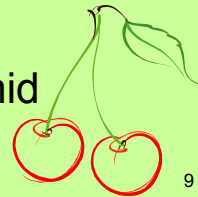
- Apple pie
- Applesauce
- Raw apples



Nutrient Profile – Fruits and Vegetables

- Vitamin A
- Vitamin C
- Folate
- Dietary fiber
- Potassium

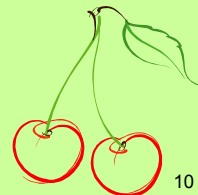
Source: USDA, MyPyramid



9

Nutrient Instability

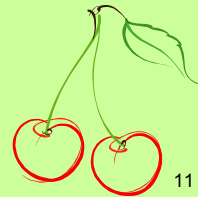
- Vitamin A – acid, oxygen, light, heat
- Vitamin C – oxygen, light, heat
- Folate – acid, light



10

Water Solubility

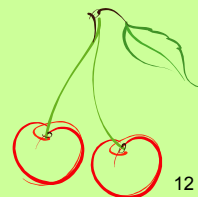
- Vitamin C
- Folate
- Potassium



11

Factors Affecting Nutrients in Fruits and Vegetables

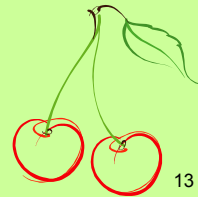
- Cultivar
- Growing conditions
- Post-harvest handling
- Preservation
- Storage
- Home preparation



12

Comparing Nutrient Content

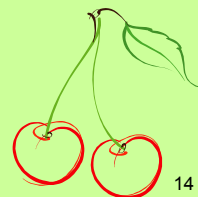
- Fresh
- Canned
- Frozen
- Dried



13

Maximizing Nutrient Content

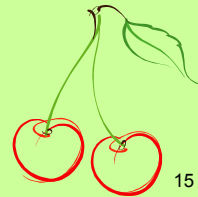
- Raw
- Canned
- Frozen
- Dried



14

Carolyn's Conclusions

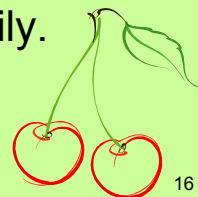
- Uncooked fruits/vegetables eaten soon after harvest have the highest nutrient content.
- Raw is not necessarily the most nutritious.



15

Carolyn's Conclusions

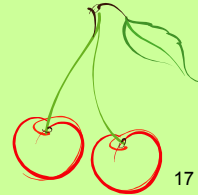
- Vitamin losses during preparation/ processing can range from 0 to 100% depending on conditions.
- Vitamin C is lost most readily.



16

Carolyn's Conclusions

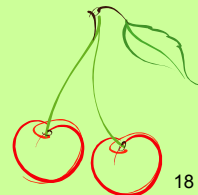
- Research is needed to compare the nutrient content of different forms of the same fruit/vegetable (raw, frozen, canned, dried).
- The most important consideration is nutrient content at time of consumption.



17

Factors Affecting Food Choices

- Taste
- Cost
- Convenience
- Nutrients



18

Eat a variety

