

Name: _____

Period: _____

Grain Foods

Chapter 14- Guide to Good Foods, Pages 256-264.

Cereal products are _____ grains.

Suitable for use as a food

Used in _____, flours, meals, _____, pasta products and starches

Most common cereals used in USA- corn, wheat, rice, oats, barley and rye.

Grain structure

1. Kernel - _____
2. Bran - _____
3. Endosperm - _____
4. Germ - _____

Types of Grain

Whole grain – contains all _____ parts of the kernel

Example- _____

Refined – bran and germ removed during _____

Example- _____

Breakfast foods (AKA cereal)

Most popular are _____, rice, wheat and _____.

They are made from whole grains, enriched refined grains or a combination of both.

They may be presweetened or unsweetened with added ingredients like _____ or nuts.

Types of breakfast cereals:

1. Ready to eat- Pour from the box and eat
Examples- _____, shredded, flaked, granulated, _____ or formed into a shape
2. Quick-cooking or instant- _____ cooked and little to prepare; Require _____ and heat; maybe-cracked, crushed, granular or flaked
3. Raw or old-fashioned- have a longer cooking time
Examples- _____ and _____

Types of Flour

1. All-purpose flour– Milled and sifted from varieties of wheat; consists mainly of _____; can be bleached (whitens) or _____
2. Cake flour – soft flour; made from _____ wheat; used for _____ and other baked products with a delicate texture
3. Instant or quick mixing flour –all-purpose flour treated to blend easily with liquids like _____ or sauces
4. Self-rising flour – all-purpose flour with added _____ agents and _____; when using must adjust recipes
5. Whole wheat flour –made by milling the _____ wheat kernel; has a nutlike _____ and a coarse texture

6. Potato flour – made from cooked potatoes that are dried and ground; used by people on _____ free diets
7. Buckwheat flour- made by sifting buckwheat meal; is finely ground and used in _____
8. Rye flour – made by sifting _____ meal; finely ground whole grain rye flour; popular in bread making
9. Soy flour – made from ground soy beans; strong _____; must be combined with _____ when used to bake
10. Rice flour– made from milling white rice; is a white and starchy flour; popular in Asia and Far East

Rice – is classified according to grain length

Long grain rice- is _____ and fluffy when cooked; used as a side dish

Short grain rice- is small and sticky when cooked; used in _____, Asian foods, Croquettes and rice rings

Types of rice:

1. White Rice- is white starchy _____ of the rice kernel
2. Brown Rice- _____ is removed but contains bran, endosperm and germ
3. Parboiled or Converted Rice- steeped in warm water, drained, steamed, and _____: improves nutritive value and keeping quality of the rice
4. Precooked or Instant Rice- cooked, rinsed, and dried by a special process before packaging; takes _____ to prepare at home
5. Wild rice – is NOT a _____; seed of a _____ grown in Minnesota and Canada; nutlike flavor and very _____

Pasta -is a nutritious shaped _____ that may or may not be dried. It is made from _____ that comes from durum wheat; durum wheat especially grown for pasta. It gives pasta nutty flavor and firm shape; Noodles are made by adding _____ to the pasta dough

Other Grain Products

1. Cornmeal - ground white or yellow corn, often enriched.
2. Hominy - corn minus the hull and germ
3. Cornstarch - refined starch from the endosperm of corn. Used as a thickening agent
4. Pearl barley - Whole barley minus the hull. High in minerals.
5. Bulgur wheat - whole wheat that has been cooked, dried, bran partially removed and cracked
6. Wheat germ - germ portion separated during milling. Vitamins and minerals
7. Farina - grinding and sifting wheat that has the bran and most of the germ removed. Thickener or breakfast cereal (cream of wheat)
8. Couscous- granules of precooked, dried semolina; cooks quickly; used as a side dish

Nutritional value of cereal products

1. Excellent source of complex _____.
2. Important source of _____ protein; add cheese to pasta and milk to a cereal dish and up the _____ quality
3. Important source of _____ vitamins-(thiamin, riboflavin and niacin), and minerals- iron, magnesium and zinc.
4. Low in _____ and sodium and sugar

Cereal Products- additional nutritional information

1. Refined cereals only contribute _____ and incomplete protein unless they are enriched
2. Enriched cereals have added _____ to replace the ones lost in processing; contain thiamin, niacin and _____, folic acid, and iron; Federal law requires flour, white rice, pasta, cereal and bakery products to be _____ if they cross state lines

Storage of cereals

1. In tightly sealed _____ in a cool dry place.

Cooking Starches

Common sources of starch granules in cereal grains that are used in cooking:

Wheat flour- makes an opaque mixture when used as a thickening agent in _____ and unsweetened sauces

Corn Starch and Tapioca- makes a clear mixture when used the thicken _____ and sweet sauces

Cooking starch thickened mixtures:

Gelatinization- starch granules are mixed with _____ and _____; Starch granules _____ and the mixture thickens; continue to heat and becomes thicker until reaches maximum thickness; example: _____

Syneresis- during cooling process starch mixture form a _____; spaces in the gel network contain _____; cut the gel or let it stand too long and the water _____ out; example: lemon pie filling

Factors effecting cooking of starch thickened mixtures

1. Temperature- cook on _____ temperature
2. Time- enough time for gelatinization to occur
3. Agitation- constant gentle _____
4. Mixing Method- to prevent _____
 - a. Coat with fat to form a roux
 - b. Combine with sugar
 - c. Mix with a cold liquid to form a paste

Cooking cereal products

Uses same principles of cooking starches

Starch granules swell and soften to improve _____ and _____

Amount of water varies depending on the type of cereal; example: oatmeal

Cooking Rice

Cooked rice should be tender and fluffy and not sticky and gummy

Will need _____ the amount of water to the volume of rice

Bring water to boil in a saucepan

Add rice and cover with lid

Reduce _____ and simmer on low

Should absorb all water when cooking

Makes _____ the amount of uncooked rice
Brown rice cooked same way but takes _____ as long to cook

Cooking Pasta

Bring water to a _____
Use 2 quarts of water to _____ ounces of pasta
Add drop of oil to prevent pasta from sticking
Add pasta to boiling water
Simmer pasta until _____
_____ and do not rinse if using immediately
Cooking pasta will double the volume of the uncooked pasta

Microwaving cereal products

Cooking time not faster in a microwave
Clean-up easier- food do not _____
Use large enough containers to prevent _____ - _____
May be reheated without stirring or adding additional water

Please label Grain Structure-

