

## Gluten - (aka wheat meat)

The best book on gluten and its uses is *The Amazing Wheat Book*, by LeArta Moutlon, published by LM Publications, 885 E. 900 N., Mapleton UT 84664. [www.LeArta.com](http://www.LeArta.com). (LeArta demonstrates the gluten making process on a video/DVD, also available on her website.)

Gluten (glūt n) is a vegetable protein. It can be used as a meat substitute and tastes very good when creatively seasoned.

Gluten contains the 8 amino acids of protein; however, the amount of the amino acid lysine in most wheat is very low. To make the protein more complete add legumes, vegetables, or nuts and seeds to your gluten dishes at the same meal or to meals as much as two days apart.

After wheat grain is ground into flour, the gluten can be separated from the other components of the flour by adding water, waiting a few minutes, and then “kneading” the gluten in water. The exact quantity of gluten is determined by the variety of flour. This sticky, somewhat elastic substance is beige in color, has almost no taste, is insoluble in water and can take on various textures when prepared with certain techniques.

Gluten is very easily digested and the “gluten water”, starch, and bran can be used in a variety of ways after the gluten has been isolated and removed. (Another class, perhaps.)

### Ground Whole Wheat Flour Method

*(White flour is useable, but not recommended, as gluten is harder to control and yield is smaller.)*

#### Isolating the Gluten

Start with 7 C. of ground whole-wheat flour. Add 3½ C. water. Stir to moisten the flour until you don't see any dry flour, adding up to as much as ¾ C. more water as needed to make a soft, bread-like, “dough.” If you add too much water, the gluten cells will not hold together in the rinsing process.

Allow mixture to rest for 15 – 20 minutes. (Can be left for up to 4 hrs. if covered in a cool place.

#### The Rinsing Process

*(Use this method when all the liquid, starch, and bran are to be saved and/or water is scarce.)*

Fill an extra large deep bowl and a medium sized bowl both about 2/3rds full of water.

Grab as large a handful of “dough” as you feel you can work with. Submerge the “dough” in the large pan of water and start “kneading” it in your hands. At first the “dough” will feel like it is going to fall apart. Just hold onto it and keep kneading it.

As the starch and bran are kneaded out, the “dough” will become spongy. Keep kneading in the first bowl until the soft sponge holds together.

Now transfer the gluten to the second bowl to rinse. Continue kneading for a couple of minutes as a final rinse. The sponge will tighten up. Set this blob aside.

Grab another handful of “dough” and repeat. Repeat process until all the “dough” has been turned into gluten. Knead into one blob and let it sit for a few minutes before cooking. The longer it sits the firmer the texture will be after cooking. (Not necessary when using the instant gluten.) I only let mine sit for 10-15 minutes.

*Congratulations! Now wasn't that easy?*

(One-bowl method when water is very scarce – When water becomes so saturated with starch that the gluten will not hold together, pour the water into a tall container. Wait for the bran and starch to settle. Pour the water off, back into your mixing bowl, and continue rinsing your “dough” to a blob. Repeat as necessary.)

\*Pour the nutrient-rich-water, starch, and bran into a container/containers to save for other uses. Stores in the refrigerator for 5-6 days.

## Commercial Gluten Flour Method or “Instant” Gluten

*(From The Amazing Wheat Book)*

Commercial gluten flour, found in health food stores or bulk buying outlets, produces *instant* gluten when water or broth is added to it. To give this type of raw gluten a more tender texture, add any bean or whole grain flour (commercial or home ground) to the gluten flour before stirring in the liquid.

Stir together thoroughly...

2 C. gluten flour

1/3 C. flour (soy, whole wheat,  
rice, bean, etc.)

3-4 Tbsp. dry seasoning mix

1 Tbsp. carob powder (when using to  
substitute a cooked red meat)

Add...2 ¼ C. water (you can dissolve a liquid or paste seasoning into the water, before adding the water, if a dry seasoning is not available). Stir liquid into flour mix (it takes only about 10-12 stirs) and you will have *instant* raw gluten. Work and squeeze dough into a tight ball and place in steamer.)

## Cooking the Gluten

*(Surface of cooking equipment should be sprayed with a baking spray or lightly oiled.)*

Knead the gluten into one large blob.

Steam in a vegetable steamer – 20 to 30 minutes. (to desired firmness)

OR...Double boiler – 30 minutes.

OR...Roll to ½ inch thick onto a cookie sheet and bake at 350° for 30 minutes, pricking any bubbles that may form with a fork to allow the steam to release. Fold baked gluten in half and wrap in a plastic bag for 10-15 minutes to soften the “crust.” (*The baked gluten is used for ground gluten.*)

To form mini steaks...Fill an oiled No. 2½ can with raw gluten. Place can in a saucepan on a jar ring to hold it up from the bottom of the pan. Fill pan with 2 cups water. Bring water to boil, reduce heat to medium, and cover pan with lid. Steam for 1 hr. or until gluten is firm, adding water to pan as needed. After removing gluten from can, slice into ¼ - ½” slices. The “steaks” are now ready for soaking and frying, or to store in the refrigerator or freezer.

### Shaping the Gluten

(*Done after cooking, (to set the gluten), except for when making jerky.*)

Thin slices – mock chipped beef, chicken, or ham.

Thick slices – mock chicken fried steaks, veal cutlets, Salisbury steak or fish sticks. Keep the “steaks” about ½ “ thick so they don’t harden while simmering.

Cubed – for stews or stir-frying.

Pulled apart into medium sized chunks – mock chicken tenders.

Ground – mock ground hamburger or sausage. (Grind in meat grinder, food processor, or the large side of a shredder.)

### Flavoring the Steamed or Baked Gluten

**(*Good flavorings & seasonings are the key.*)**

When making gluten from whole wheat flour, season AFTER it has been baked or steamed. (If grinding for “hamburger”, cook, grind, then season.)

When making gluten from Gluten Flour, the seasoning can be added BEFORE it is cooked.

Steamed gluten can be seasoned as beef, chicken, ham, clam, or crab. Use in stews, soups, or salads.

For gluten steaks, slices, cubes or pieces, (but not “hamburger”) place UNFLAVORED gluten shapes in saucepan with enough seasoned broth of your choice to partially cover. Simmer anywhere from 3 – 5 min. to 30 min. depending on thickness, turning if necessary. (*“Hamburger” will be discussed separately.*)

For very basic flavoring - shaped gluten pieces can be simmered in either beef or chicken broth. But by adding additional flavorings and seasonings, you can greatly enhance the flavor.

Basic broth - 1 C. liquid and 2 T. flavored base. (\*See LeArta's book for a *wide variety* of great tasting seasoning ideas and recipes. It will help inspire you to make your own seasoning recipes.)

Beef Flavored Gluten (From The ULTIMATE Food Storage Cookbook by Arlene Mickelsen)

2 C. water	¼ C. dried onions
1 Tbsp. soy sauce	4 tsp. seasoned salt
2 Tbsp. beef base granules	½ tsp. pepper

Chicken Flavored Gluten (From The ULTIMATE Food Storage Cookbook)

2 C. water	½ tsp. onion powder
2 tsp. poultry seasoning	½ tsp. salt
2 Tbsp. chicken base granules or 2 chicken bullion cubes	

Simmer shaped pieces of gluten for about 30 minutes.

After seasoning, "steaks" can be breaded and fried for "chicken fried steaks" or "veal cutlets" and chicken chunks can be floured and fried for "fried chicken" or "chicken nuggets." Thin slices can be used in sandwiches and salads.

### Ground Gluten

(Used in making meatballs, patties, sausage, meatloaf, casseroles and in desserts.)  
(Can also be used as a meat extender - 1 part hamburger meat to 3 parts ground gluten.)

Basic Meatball or Patty Recipe (From The Amazing Wheat Book)

2 C. Ground Gluten	2 Tbsp. flour
3 Tbsp. finely minced onion or 1 Tbsp. instant onion flakes	1-2 eggs (reconstituted powdered eggs)
1 Tbsp. beef, chicken or sausage seasoning	2 Tbsp. oil
	salt and pepper to taste
	1 tsp. Kitchen Bouquet (optional for dark color)

Meatballs – mix dry ingredients, then add moist ingredients and gluten and form balls. Bake at 350° on greased cookie sheet or parchment paper 20 - 30 min. until firm.

\*When using any cooked or prepared gluten pieces or meatballs in a recipe that calls for boiling or simmering, add gluten just prior to serving *just to heat through*.

Patties – mix dry ingredients, then add moist ingredients and gluten and form patties. Brown in oiled skillet.

Cooked ground gluten pieces – reduce minced onions and seasoning to 1 tsp. each and omit salt and pepper. Mix all ingredients except gluten. Then mix in gluten. Spread on coated cookie sheet. Bake at 350° 20 – 30 min. until firm. Let cool and crumble into pieces resembling cooked ground sausage. (approx. ¼ - ½” pieces) Use for pizza, chili, sloppy Joes, tacos, enchiladas, lasagna, casseroles, soups, etc.

\*All shaped gluten pieces, meat balls, patties, and cooked ground gluten can be prepared in advance and stored in the refrigerator (7-10 days) or freezer.

For recipe and instructions for making jerky and using gluten to make sweet treats as well as suggested uses and recipes for using the “gluten water”, starch, and bran, see LeArta Moulton’s book, *The Amazing Wheat Book*.

*The Amazing Wheat Book* has an entire section on seasonings and mixes, and another one on breads, crackers and desserts.

\*I highly recommend LeArta Moulton’s book for anyone who’s following the counsel of the Brethren to include wheat in their long-term storage. It has the most comprehensive and accurate information on gluten I’ve been able to find. Lots of good recipes and very reasonably priced.

With just a handful of herbs, spices and condiments we’ll be able to provide a much greater variety of tastes and textures for those we love when we have to live off of what we have stored up.

Now is the time to experiment and practice so we’ll have a few of the *extras* that will enable us to turn “all that stuff” into both nutritious *and* delicious meals.

## NOTES