

BONE MARROW from Weston A Price

Traditional peoples who consumed large animals did not ignore the marrow hidden away in the bones; in fact, they valued the marrow as an extremely nutritious food.

Weston Price provides us with a good example: "For the Indians living inside the Rocky Mountain Range in the far North of Canada, the successful nutrition for nine months of the year was largely limited to wild game, chiefly moose and caribou. During the summer months the Indians were able to use growing plants. During the winter some use was made of bark and buds of trees. I found the Indians putting great emphasis upon the eating of the organs of the animals, including the wall of parts of the digestive tract. Much of the muscle meat of the animals was fed to the dogs. It is important that skeletons are rarely found where large game animals have been slaughtered by the Indians of the North. The skeletal remains are found as piles of finely broken bone chips or splinters that have been cracked up to obtain as much as possible of the marrow and nutritive qualities of the bones. These Indians obtain their fat-soluble vitamins and also most of their minerals from the organs of the animals. An important part of the nutrition of the children consisted in various preparations of bone marrow, both as a substitute for milk and as a special dietary ration" (*Nutrition and Physical Degeneration*, 6th Edition, page 260).

When Price devised a nutrition plan for an orphanage, the meal included bone marrow. "About four ounces of tomato juice or orange juice and a teaspoonful of a mixture of equal parts of a very high vitamin natural cod liver oil and an especially high vitamin butter was given at the beginning of the meal. They then received a bowl containing approximately a pint of a very rich vegetable and meat stew, made largely from bone marrow and fine cuts of tender meat: the meat was usually broiled separately to retain its juice and then chopped very fine and added to the bone marrow meat soup which always contained finely chopped vegetables and plenty of very yellow carrots; for the next course they had cooked fruit, with very little sweetening, and rolls made from freshly ground whole wheat, which were spread with the high-vitamin butter. The wheat for the rolls was ground fresh every day in a motor driven coffee mill. Each child was also given two glasses of fresh whole milk. The menu was varied from day to day by substituting for the meat stew, fish chowder or organs of animals" (*Nutrition and Physical Degeneration*, 6th Edition, page 295).

A search of the Internet reveals bone marrow recipes described with great affection by epicures in France, Ireland, the Philippines, and Korea. Cultures such as the Native American or Mongolian might have eaten the marrow raw—which can be extracted in one long, cohesive cylindrical piece with a well-placed tap on a femur bone. In gourmet cooking, marrow shows up as a garnish for beef tenderloin served with an intricate reduction sauce. Medieval recipes include meat pasties stuffed with sweetened bone marrow and quinces stuffed with marrow! Very little information is available about the nutritive qualities of bone marrow. A lone nutrient analysis of raw caribou bone marrow posted at nutritiondata.com notes that bone marrow is 97 percent fat and recommends "Better Choice Substitutions" of native plant foods and fish for weight loss! The sketchy analysis showed small amounts of iron, phosphorus and vitamin A. Bone marrow is likely rich in vitamin K and other fat-soluble nutrients, but tests to determine a range of nutrients in bone marrow remain to be carried out.

Some commentators insist that bone marrow provided a rich source of polyunsaturated fatty acids in traditional diets but the explorer Vilhjalmur Stefansson describes two types of marrow, one type from the lower leg which is soft "more like a particularly delicious cream in flavor" and another from the humerus and femur that is "hard and tallowy at room temperatures" (*The Fat of*

the Land, page 27).

Leukemia and other bone marrow diseases are widespread today. The Life Extension Foundation website describes the work of a Dr. Brohult, a Swedish oncologist working with leukemia patients in a children's hospital. "In her effort to stimulate her patients' bone marrow to resume normal function, Dr. Brohult administered calves' marrow to the children in her care... Parents in Scandinavia have long served bone marrow soup to their children in winter, in the belief that it builds strength. Dr. Brohult reasoned that healthy bone marrow from calves might trigger a resumption of healthy function in humans.

"Her hope... paid off. Although the results were inconsistent, some of her patients quickly experienced remarkable improvements, including a normalization of white blood cell counts and a striking return of energy" (www.lef.org/magazine/mag2005/aug2005_report_shark_01.htm). The article continues with a description of alkyglycerols, long-lasting lipids that have immune-stimulating qualities, which have been isolated from shark oil. But why separate out a single compound to sell in an expensive pill when you can just eat bone marrow? Unfortunately, modern westerners are not used to eating bone marrow, and its dark color can be unappetizing to look at.

One solution is to simply spread marrow on toast and cover it up. If you are making beef broth using marrow bones, or beef shank stew or osso buco (Italian-style veal shanks), remove the marrow from the bones when the broth or stew is ready and spread on toasted sourdough bread—it spreads like butter; in fact, it is spreadable even when very hot (must be those alkyglycerols!). Then sprinkle generously with salt and cover with finely sliced onions and capers—you'll be eating something very delicious while feasting your eyes on white (or red) onions and green capers. This can be served as an hors d'oeuvre before the main course. (Note: to prepare capers, rinse off all vinegar and then thoroughly pat dry.)

Another wonderful garnish is chopped parsley mixed with capers, thinly sliced onion, olive oil and lemon juice.

European chefs recommend soaking the marrow bones (cut 2-3 inches in length) in cold water, changed several times, for 12-24 hours. This process makes the marrow turn a pale creamy pink color instead of the unappetizing grey. After the soaking, cover the bones with cold water, bring slowly to a boil and barely simmer for about 20 minutes. Scoop the cylinder of marrow out with the handle of a small spoon. You can then slice the marrow and use it as a garnish on meat, add it to blended soups, use in the recipes below... or mash with a little salt and feed to your baby!

Bone Marrow Custard

Serves 4

1 cup heavy cream

2 ounces bone marrow

2 egg yolks

1 whole egg

sea salt and pepper to taste

Prepare the marrow as above, so it is a pale color, not grey. Blend cream, marrow and eggs and season to taste. Pour into four small buttered ramekins, place in hot water and bake at 300 degrees for about 20 minutes or until the custard is set. Let cool and unmold. Serve as an accompaniment to meat.

Steak Tartare with Bone Marrow

Serves 8

about 4 ounces bone marrow, prepared as above, cut into 1/2-inch slices

1 pound ground fatty beef

2 teaspoons capers, drained, dried and chopped
2 shallots, peeled and finely chopped
1 tablespoon parsley, finely chopped
1/2 teaspoon Asian fish sauce
1 egg

sea salt and pepper to taste
dash cayenne pepper

8 thin slices sourdough bread, crusts removed
about 6 tablespoons olive oil or lard

This delicious recipe is adapted from a recipe by Richard Corrigan posted at www.bbc.co.uk/food./recipes.

Mix beef, capers, shallots, parsley, egg and fish sauce and season to taste. Sauté bread slices on both sides in lard or olive oil over medium heat. Remove from pan and quickly sauté marrow slices. Spread sautéed bread with steak tartare and top with marrow slice.

Tomato Marrow Soup

Serves 8

4 ounces bone marrow
6 fresh tomatoes, seeded, peeled and chopped
3 tablespoons butter or ghee
2 medium onions, sliced
1/2 cup white wine or vermouth

6-8 cups beef stock
sea salt and pepper to taste

pinch cayenne pepper
about 1 cup cultured cream

Use the marrow from the bones used to make stock for this delicious soup—the red of the tomatoes will cover up any grey.

Sauté onions gently in melted butter until very limp and golden brown. Add the tomatoes and sauté over medium heat, stirring occasionally until all liquid has evaporated. Add wine or vermouth and boil down slightly. Add beef broth and marrow and bring to a simmer. Skim off any scum that may rise to the surface and simmer about 15 minutes. Blend with a handheld blender. Season to taste and serve with cultured cream.

Marrow Pasties

Makes 6

3 ounces bone marrow
1/2 cup Rapadura or maple sugar
2 tablespoons currants
1 teaspoon cinnamon

2 egg yolks

about 1 cup yoghurt dough (page 485 in *Nourishing Traditions*)

2 tablespoons melted butter
1 tablespoon Rapadura or maple sugar

This unusual recipe comes from a medieval Dutch cookbook. The pasties—called by the wonderful name of sluberkens—were typically served as a first course; modern tastes might prefer them for dessert.

Combine marrow with Rapadura or maple sugar, egg yolks and cinnamon. Stir in currants. Roll dough into six thin 5-inch rounds and place a spoonful of filling into each. Fold over and pinch edges. Brush each with butter and sprinkle with Rapadura or maple sugar. Bake at 350 degrees for about 20 minutes.

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