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# Cooking Brown Rice: To Blast or Boil?

## Taking a Look at Pressure Cooking

Caren Bakkum

**W**hat is the history of the pressure cooker? Why are many of us in macrobiotics attached to using a pressure cooker for cooking rice?

My journey in macrobiotics began over thirty years ago when my health was compromised. Throughout my childhood, teenage years and 20s, I was plagued with asthma, allergies and related respiratory problems, sometimes more acutely, sometimes more chronically. By my late 20s, I had moved back to my hometown to live with my parents and was taking great quantities of medications including inhalers and steroid drugs.

Then I learned of macrobiotics. Macrobiotics sounded dramatic and downright whacky. After a precipitous pause and a moment of true despair I thought, why not give it a try? In earlier years, I had eaten a vegetarian diet, rather mindlessly, even accidentally, I admit, not with any view of health and in fact in a way that worsened my health. With macrobiotics I ate new foods, eliminated many familiar foods, drove from my small Georgia town to Atlanta, ninety miles away, to shop every week and read the newly published *Spiral of Life* by Michio Kushi. I felt big changes and plunged into a zealous and fanati-



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cal phase of practicing macrobiotics. Within a few more weeks I headed off to study at the Kushi Institute in Brookline, Massachusetts.

At that time, around 1979, short brown rice was the primary grain of macrobiotic cuisine and it was always pressure cooked. Legend had it that pressure cooking was the best, if not only acceptable way to cook rice.

During the next few months, my health improved greatly, almost miraculously and I continued practicing macrobiotics in a strict, fanatic way

for several years, at least in the way I knew how. Then, when I was ready to broaden my outlook and habits, I found little information to help with a more flexible approach. By the mid-80s I was working for Michael Rossoff in his counseling office in Bethesda, Maryland, and at that time he was recommending less pressure cooking, especially in warm seasons. The elevation of Washington, DC is sea level. Normal weather is hot and muggy there, so I welcomed the permission for less pressure cooking. I also began using more long grain rice and millet. At the same time I began researching and paying more attention to the history of food and cooking in traditions beyond macrobiotics.

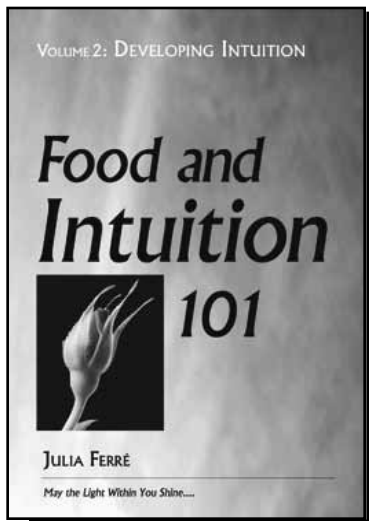
### **A HISTORY OF THE PRESSURE COOKER**

The pressure cooker was used, throughout much of its history, for the purpose of canning, but the first pressure cooker was an exception.

Denis Papin, a Frenchman living in London, is credited with inventing of a pressure cooker in 1679. The Papin Digestor or Steam Digestor used intense steam pressure not only for cooking, but for softening food, or “softating” as he called it. It was a cumbersome apparatus capable of

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— *from the Preface*

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dissolving even bones of beef. When he first presented his Digestor to the Royal Society of London, the cooker exploded, alas a hazard which contributed to its doom. The unwieldy size, along with the requirement of its own special furnace did not help. Even after the addition of a safety valve feature, this early pressure cooker rusted into oblivion. As for Papin, he moved to Germany and turned his interests to developing a steam engine.

Almost a century later, Napoleon offered a reward of 12,000 francs for a method of safely preserving food to feed his armies. A man named Nicolas Appert began experimenting and spent years developing a process he called Appertization, effective for vegetables and meats alike, and was finally awarded his prize in 1810. Appert placed ingredients in clean jars, sealed them with cork and sealing wax, then cooked the jars in boiling water for a few hours, in essence pasteurizing them a few decades before Louis Pasteur's scientific work. His apparatus for steaming in a pressure chamber was an early autoclave, essentially what in modern times is used as a sterilizer in the medical world. Canning methods soon spread to England and the United States, but did not gain popularity in the U.S. until the Gold Rush, and later the Civil War, stimulated interest and need. By the time of the Gold Rush in the 1840s, canning had advanced to using tin cans.

Although a U.S. patent was issued for a canning apparatus using steam pressure in 1874, not until 1902 were patents for the first true pressure cookers granted. The term “pressure cooker” made its debut in the Oxford English Dictionary in 1914. In 1917, following episodes of food poisoning, the U.S. Department of Agriculture required all commercial canneries to use pressure cookers. These commercial pressure cookers were 50-gallon sized, followed by smaller ones of 30 gallons for hotels and such.

A sauce-pan-style pressure cooker

was introduced in 1939, at the New York World Fair by Presto, a brand name that in the U.S. became synonymous with pressure cooker. This sauce-pan model used a new version of a lid featuring an interlocking closure, to replace the previous lug nuts and clamps. The first home friendly pressure cookers were still intended for canning. Despite their quick rise in popularity, production was interrupted by World War II when manufacturing plants diverted both cookers and aluminum to war needs.

After World War II, Presto released a 4-quart pressure cooker suitable for cooking food, not just for canning, and American households embraced the pressure cooker with post-war enthusiasm. Soon many manufacturers jumped into the pressure cooker market, often with poorly made and unreliable models, so their virtue for efficiency was marred by their reputation for erupting and exploding. Meanwhile American housewives were distracted by new conveniences, from frozen foods to new kitchen gadgets.

### **PRESSURE COOKERS IN MACROBIOTICS**

After the war, the popularity of pressure cookers increased in many countries. High quality, well designed, stylish pressure cookers, equipped with reliable safety features were produced outside of the U.S. and escalated in popularity especially where fuel was expensive and/or scarce. Japan was among those countries still suffering and recovering from the war, but also welcoming technology and new products, including the pressure cooker.

Although I speculate, it seems that our first macrobiotics leaders and teachers, all Japanese, unanimously embraced the pressure cooker even though the pressure cooker did not have a long or even traditional use in Japan. In fact, stainless steel pressure cookers were not available until the 1950s, and as already mentioned,

a home friendly 4-quart size was first available in the 40s.

Lima Ohsawa in *The Art of Just Cooking* teaches us how to use a pressure cooker in preparing rice. Along with other advantages of pressure cooking she mentions that “mistakes are less likely to be made.” Aha, fewer mistakes! This seems to be the key reason for recommending pressure cooking. A pressure cooker is by nature a solid, heavy quality pot. Directions for the process of cooking rice in a pressure cooker are more straightforward, less nuanced than cooking with sundry pots and pans, often flimsy, with ill-fitting lids.

Let’s take a look at the properties of pressure cooking. In macrobotics we learn that there are four elements of cooking: heat, time, salt and pressure. Pressure cooking rice uses all four elements, plus pressure cooking means raising the temperature of the water-steam in the pot, an intensification of yang cooking. We can conclude that pressure cooking rice is more yang than boiling it.

Two commonly acclaimed benefits for pressure cooking are that cooking is faster and that more nutrients are retained. Some macrobotic leaders and cooking teachers have stated that pressure cooked rice is both more digestible and more delicious. Let’s look at these assumed benefits. First, cooking brown rice in a pressure cooker is not significantly faster than cooking by boiling. As for digestible, my personal feeling is that soaking rice for several hours before cooking (and then cooking properly) makes rice digestible and delicious. Chewing is important, whichever cooking method is used.

Generally there is a difference in texture between boiled and pressure cooked rice. My recipe (see below), when made with part sweet rice, is similar in texture to pressure cooked rice, but not as yang or dense. As for delicious, I think it is a matter of taste, along with habit. In an energetic sense, soaking “awakens” the rice and

begins the transformation that is completed by cooking. Science is not my forte, but soaking proponents claim that soaking, then discarding the soaking water, eliminates phytic acid which inhibits absorption of minerals.

Obviously, I prefer boiled rice most of the time. I live in the mountains of western North Carolina, where we enjoy all seasons, but overall have a moderate climate without extremely hot summers or extremely cold winters. Macrobotic friends who live in more northern and wintry climates may naturally resonate with pressure cooked rice, especially in cold times of year.

During the last few years I’ve had several long-time macrobotic friends and acquaintances remark that they are going through a spell when they “can’t eat grains” or “can’t eat rice.” I am wondering if this is in part due to excess pressure cooking of rice. I’ve spoken with more than a few people who become downright emotional over the subject of pressure cooked brown rice, and any questioning of it.

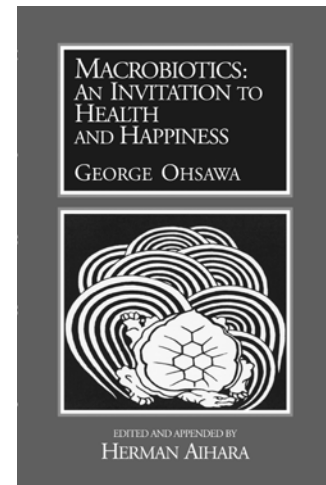
Although my intention is to question the macrobotic devotion to pressure cooking rice and to focus on it with a close-up lens, I do not mean to overly criticize, much less condemn this valid method of preparing rice. The macrobotic approach to cooking and lifestyle has always struggled to define itself, and whether rightly or wrongly it is often perceived by others as strange, difficult, extreme and heavy laden with unintelligible rules, obscure ingredients and more. Pressure cooking rice can appear as yet another hard-to-understand component. Fortunately, most macrobotic cookbooks, including those published long ago, include a recipe for cooking rice by boiling.

For the record, I rely on a pressure cooker for cooking several types of beans. In earlier years I did not hesitate to blast away, and taught others to do the same, but in more recent years I use pressure cooking judiciously, with more gentle pressure.

## COOKING SHORT BROWN RICE, NO PRESSURE COOKER NEEDED

- Wash 1 cup of rice and drain thoroughly in a sieve. Measure 2 cups water for soaking rice. Soak in cooking pot for 6 to 8 hours, up to 12 or 16 hours.
- Drain soaking water into a measuring cup, using a sieve to prevent pouring off rice. Note water measurement. Toss the soaking water. Replace soaking water with the same amount of fresh water.
- Bring rice to a simmer, with lid slightly ajar. Once rice simmers, add salt, and bring to a vigorous boil. Place lid firmly on pot. Keep rice at a rapid boil for at least one minute, or two minutes.
- Slip a pre-heated flame tamer

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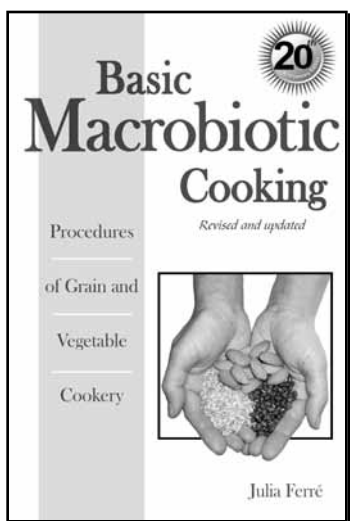
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under the pot of rice. Reduce heat to low, but towards low-medium. Experiment with best heat setting on your stove.

- Cook rice for 45 to 55 minutes. Turn heat off and take pot off burner.
- Let rice sit in the pot for 5 to 15 minutes, then use a rice paddle or other wide wooden spoon to gently scoop the rice into a bowl.
- Cover with a bamboo mat once rice has cooled slightly, or after serving. Rice can stay on the counter-top, covered with a bamboo mat, usually for at least 12, up to 24. But, beware of conditions with poor ventilation or hot weather, especially hot and muggy / sultry weather.

Variation: To make the consistency of boiled rice more similar to pressure cooked rice, use  $\frac{3}{4}$  cup of short brown rice, and  $\frac{1}{4}$  cup of sweet brown rice (a stickier rice). This is my personal favorite rice recipe during cool and cold weather times.

Note on soaking: Soaking time can suit your schedule, for example, soak all day if you are out of the house, then cook for dinner. Or soak all night to cook in the morning. If you miscalculate, and don't cook as planned, soaking 24 hours is fine. If concerned about rice starting to sour then rinse after 8 to 12 hours, and either replace soaking water or just leave rice in a sieve. Leaving it in the sieve will make it dry slightly but you will still cook with the amount of water that was drained after soaking.

If you are short on soaking time, my advice is to choose another grain such as millet or Basmati rice to soak for one to three hours. Or, prepare noodles, white rice, or couscous.

### **FIVE KEYS TO DELICIOUS, NUTRITIOUS, DIGESTIBLE RICE:**

- Soak rice before cooking, for

short brown rice soak at least 5 hours for good results.

- Use good quality cookware. High quality stainless steel cookware typically has an inner core of aluminum, at least on the bottom. Heavy enamel cookware is an excellent choice, for example, Silit, or a Le Creuset style brand. The lid must fit snugly, and should not rattle or dance once heat has been reduced. Avoid lids with steam vents.
- Keep rice at a rapid boil from one to two minutes before reducing flame and putting pre-heated flame tamer under pot.
- Size of pot should correspond to amount of rice. Once cooked, rice should fill about two-thirds to three-quarters the pot capacity. Rice, when cooked, should not reach the top of the pot, or come within an inch of the pot brim.
- Experiment with individual stove for correct heat setting during cooking, and for measurement of water to rice needed for particular cookware, stove and personal preference. Cooking with a gas flame is highly recommended. If using an electric stove, it is probably best to pre-heat a second burner for transferring pot to a lower temperature after rice has boiled.

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*Caren Bakkum enjoys cooking, eating, and exploring the traditional foods of many countries, always with a macrobiotic perspective in mind. She has worked with, lived with and enjoyed the company of Michael Rossoff, macrobiotic teacher and counselor, for many years. She welcomes feedback and discussion on this article and can be reached by email: [thymewithcaren@gmail.com](mailto:thymewithcaren@gmail.com).*