

F IS FOR FERMENTED FOODS

Long before probiotics became the darlings of the microbial world, cultures throughout history and across the globe were celebrating fermented foods. Born as a preservation method and used for millennia, the Neolithic tradition of fermentation has sparked modern use of and interest in probiotic microbes.

Most research focuses on fermented dairy products. However, vegetables such as cabbages, carrots, garlic, soybeans, olives, cucumbers, onions, turnips, radishes, cauliflower and peppers, in addition to fruits such as lemons or berries, offer novel flavors and textures—partly explaining why home fermentation, and particularly lactic acid fermentation, is becoming an increasingly popular trend.

History & Benefits Source:

<http://www.foodandnutrition.org/Winter-2012/The-History-and-Health-Benefits-of-Fermented-Food/>



One of the reasons? The gut is the largest part of our immune system so it matters what you put in it. You have likely read that sugar and refined carbohydrates cause damage but you may not know that fermented foods heal.



8 REASONS TO EAT FERMENTED FOODS

1. Fermented foods improve digestion.

Fermenting our foods before we eat them is like partially digesting them before we consume them. According to Joanne Slavin, a professor in the Department of Food Science and Nutrition at the University of Minnesota, "...sometimes people who cannot tolerate milk can eat yogurt. That's because the lactose (which is usually the part people can't tolerate) in milk is broken down as the milk is fermented and turns into yogurt."

2. Fermented foods restore the proper balance has caused many scientists to u.

Do you suffer from lactose intolerance? Gluten intolerance? Constipation? Irritable bowel syndrome? Yeast infections? Allergies? Asthma? All of these conditions have been linked to a lack of good bacteria in the gut.

3. Raw, fermented foods are rich in enzymes.

According to the Food Renegade blog, "Your body needs [enzymes] to properly digest, absorb, and make full use of your food. As you age, your body's supply of enzymes decreases. This has caused many scientists to hypothesize that if you could guard against enzyme depletion, you could live a longer, healthier life."

4. Fermenting food actually increases the vitamin content.

According to the Nourished Kitchen blog, "Fermented dairy products consistently reveal an increased level of folic acid which is critical to producing healthy babies as well as pyroxidine, B vitamins, riboflavin, and biotin depending on the strains of bacteria present. [1. Vitamin Profiles of Kefirs Made from Milk of Different Species. International Journal of Food Science & Technology. 1991. Kneifel et al].

The process of jarring and fermenting vegetables is not a new thing. In fact cultures throughout history have been benefiting from the nutrition of fermentation for centuries. Only recently has our interest in probiotic microbes and digestive enzymes sparked a renewal of this ancient holistic tradition.

Records show fermented foods date as far back as 6000 BC and in some cases this process was critical to preserving harvest during winter months. Fermented foods have been used by Eastern cultures for medicinal purposes and tradition Chinese medicine views raw foods as unfavorable to health.

FOOD SAFETY & FERMENTATION

A word of Caution:

Before you get too far into fermenting your own foods, we want to emphasize two caveats of fermentation.

First, the process of fermentation is only good for you if it occurs outside of your body. What does this mean? It means that if you ingest foods that provide an abundance of sugar and growth media for bacteria, they will ferment those foods inside of you.

An overgrowth of fermentative bacteria in your body can cause all kinds of medical problems, including Crohn's Disease, Ankylosing Spondylitis, *candidiasis*, and Irritable Bowel Syndrome. So the key is to pre-ferment your foods, that is to say, ferment your milk before you eat it.

Secondly, please do not eat spoiled fermented foods. In some rare instances, fermented foods can be overtaken by mold or become spoiled. In these cases, throw out the result and start anew.

The fermentation time will vary on a lot of factors: **temperature, starter used, quantity of salt, nature of the vegetable or fruit, ...**

The best way to go about it when trying original combinations is to taste it along the process and to go with the taste as the best indicator.

When it tastes acidic enough for your liking, it's ready to be enjoyed and placed in the refrigerator to stop the fermentation.

Taste it after 3 days, then taste it 3 days later and so on. The finished product will keep for months when stored in the refrigerator.

Source:

http://www.naturallifemagazine.com/1112/fermented_foods_making_sauerkraut.htm

THE VESSEL

Fermenting crock pots, glass jars and kits



Some special ceramic pots and glass jars are designed especially for lacto-fermentation and to keep the vegetables submerged under the brine. Like these sauerkraut pots above.

Others use a gallon sized glass vessel or you can buy kits which you can source online. Some are equipped with an airlock setup to ensure that the vegetables are under the brine.



The other very important element is the fermentation vessel. You'll want to choose a large ceramic or glass jar where you can fit a cap or plate on top to be able to press on the vegetables and keep them under the brine at all times. In any case, you'll probably want to press on the cap or plate by putting a rock or a jug of water on top.

The salt will keep on extracting water from the vegetables several hours after you put them in the fermentation vessel, but you should verify that the liquid covers your vegetables the following day and add water if it's not the case.

Some mold can also form on the surface after some time in the form of a white film, but it's usually not a problem and removing it as best as you can is good enough. It's also a good idea to place the chosen fermentation pot or jar on a plate or thick towel as the ferment usually expands and spills can happen.

NOW THAT YOU KNOW ABOUT THE GENERAL GUIDELINES TO FERMENTING , GO AHEAD AND TRY FERMENTING YOUR FAVOURITE COMBINATION OF VEGETABLES. OR TRY OUT ONE FROM THIS BOOKLET.

Check out the Final report on Tested pots at:

<http://www.nourishingtreasures.com/index.php/2012/07/03/sauerkraut-survivor-final-report/>

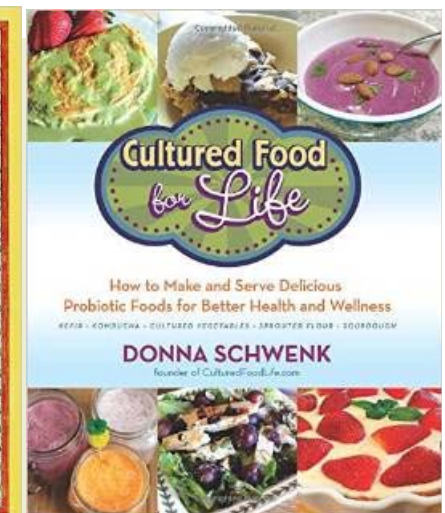
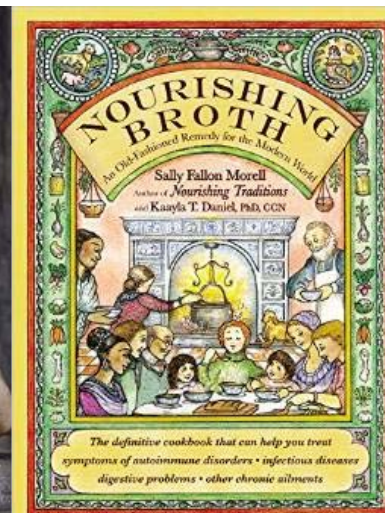
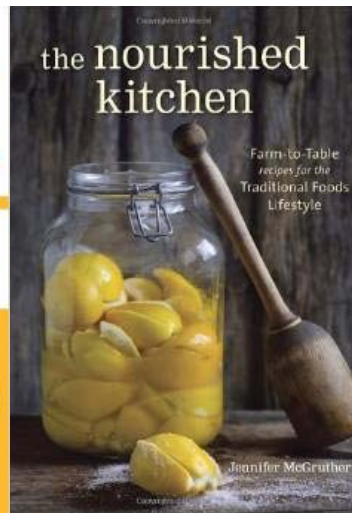
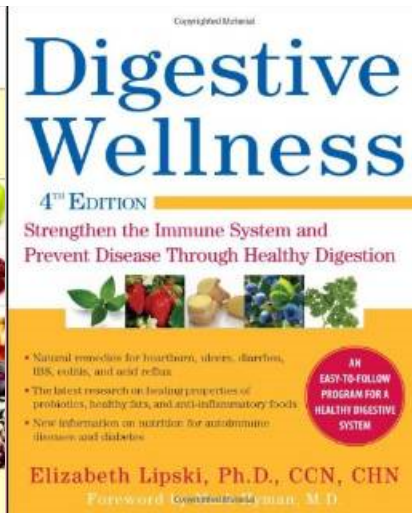
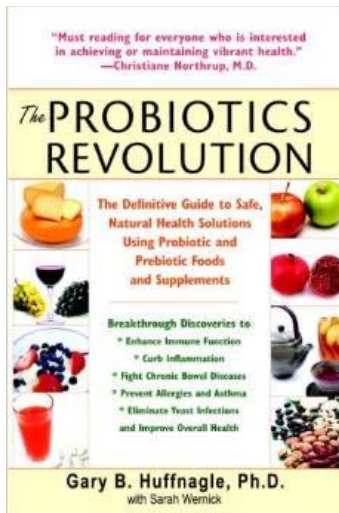


Mason jar with a white lid and an airlock installed (you can pick airlocks up for a dollar or three at your local hardware or home brew store)

Mason jar with a metal lid and an airlock installed

Can you use your crock pot?

- The big difference, however, is that unlike fermentation crocks, the lid of the crock pot does not provide an airless environment for the good bacteria & probiotics to grow. The main point of the process (and the reason why it works so effectively), is to make sure the cultured veggies stay under the brine and don't come in contact with air during the first few days of fermentation.
- Just make sure you can find a plate that fits nicely in your crock pot, or better yet, if you know you'll be using this technique a lot, I'd invest in a piece of plexyglass and cut it to fit the shape of my pot (both my crock pots are oval). All you'd have to do then is add a weight to make sure the brine covers the vegetables, and let the microbiota do it's work



RESOURCES

There are lots of book out there to source. Amazon lists the reviews so worth checking those reviews. These are just a few you can check out:

Wild Fermentation: The Flavor, Nutrition, and Craft of Live-Culture Foods (Chelsea Green Publishing 2003)

Making Sauerkraut and Pickled Vegetables at Home: Creative Recipes for Lactic Fermented Food to Improve Your Health (Alive Books 2002)

Preserving Food without Freezing or Canning: Traditional Techniques Using Salt, Oil, Sugar, Alcohol, Vinegar, Drying, Cold Storage, and Lactic Fermentation (Chelsea Green Publishing 2003)

Breaking the Vicious Cycle: Intestinal Health through Diet by Elaine Gottschall.

Probiotics: Nature's Internal Healers by Natash Trenev

Nutrition and the Diet Dictocrats by Sally Fallon, Mary G. Enig, and Kim Waters.

Beyond Probiotics by Ann Gittleman.

Acidophilus and Colon Health: How to Prevent Illness, Build Immunity, and Live a Longer, Healthier Life by David Webster.



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In addition, the information and opinions expressed here do not necessarily reflect the views of the contributors . We do acknowledge differences in opinion and welcome the exchange of different viewpoints.

Websites:

<http://nourishedkitchen.com/>

<http://www.thekitchn.com/how-to-make-beet-kvass-cooking-lessons-from-the-kitchn-193756>

<http://paleodietlifestyle.com/fermented-food-recipes/>

<http://www.wellandgoodnyc.com/2013/08/09/7-fermented-foods-you-should-be-eating/>

Videos:

Video - <http://canadaam.ctvnews.ca/fermented-foods-how-to-make-at-home-1.1181880>

Beet Kvass Sources:

<http://www.thenourishinggourmet.com/2014/03/beet-kvass-a-cleansing-medicinal-tonic.html>

<http://www.simplydixon.com/2013/03/20/lacto-fermented-beet-kvass/>

<http://www.deliciousobsessions.com/2012/04/52-weeks-of-bad-a-bacteria-week-16-citrus-ginger-beet-kvass/>

Tutorial on Beet Kvass - <http://ournourishingroots.com/real-food-101-how-to-make-beet-kvass-and-why>