

Sauerkraut Making and benefits workshop by:

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wild fermenta

Lacto- fermentation

Benefits of bacteria formed in the fermentation process

- Our immune system, starts to build right when we are born, inhibits pathogenic organisms, fights the bad guys and keeps our immune system strong.
 - Birth canal
 - Breast milk, mothers diet
- Improves digestion, great for the elderly, those with compromised digestive system,
 - Beneficial enzymes
 - Improves absorption
- Restores proper balance of bacteria in gut (80% of our immune system is in our gut)
- Rich in enzymes and the acid helps break down proteins and stimulate Hydrochloric acid in the stomach and the secretions of the pancreas
- Increased vitamin and mineral content of the food which is more bio-available and therefore absorbed, e.g. iron & Vit C
- Large quantities of Choline which aids body's metabolism of fats, lowers fat on liver, lowers blood pressure, beneficial effect of peristalsis so good for constipation.
- Finnish study in the Journal of Agricultural and Food Chemistry "fermentation breaks down glucosinolates in cabbage into compounds called isothiocyanates, which are already known to fight cancer" says Eeva-Liisa Ryhanen one of the papers authors.
- Preservation on foods for the winter months
 - Lactic acids preserve the vegetables and prevent pathogenic organisms from growing.
- Inexpensive, quick and easy to make
- Tasty! And the preparation and tending helps people connect with their food.

Sources: "Wild Fermentation" by Sandor Katz, "Nourishing Traditions" by Sally Fallon

A bit of History

- The Romans knew that the lactic acid the sauerkraut contained protected them from intestinal infections.
- Captain Cook loaded 60 barrels of sauerkraut on to his ship for his second round the world trip. Even after 27 months at sea when the last barrel was opened it was perfectly preserved. Protected them from Scurvy there was not one case on this trip. High Vitamin C content.

World wide

- Korea –Kimchi
- India – soured milk
- Japan – miso, soy sauce
- Indonesia – Tempeh

The process:

- Lacto-fermentation – Lactic Acid is formed as a by-product of the fermentation process which inhibits the putrefying bacteria i.e. pathogenic micro-organisms.
 - E-coli
 - Listeria
 - Salmonella
 - Clostridium botulinum

These cannot survive in this acidic environment, mold will not grow here either as there is no oxygen present in the submerged vegetables. It is an anaerobic process.

The Lactic acid bacteria are more prevalent and will dominate and kill off the pathogenic micro-organisms. It also rids our bodies of anti-nutrients such as Phytic Acid, therefore vitamins and minerals are easier to absorb.

- No Sugar! The starches and sugars are converted into Lactic acid
- It is the Lacto-bacilli that grow like crazy here, they are present on the surface of all living things, and they produce enzymes as well as antibiotic and anti-carcinogenic substances and the lactic acid.
- Lactic acid promotes the growth of healthy bacteria in your gut
- Our Acid Diet- this Lactic acid does not bring about in the body the overly acid environment; it is used by the body to inhibit these putrefying bacteria. Also by the increased amounts of minerals and vitamins the actual net effect in the body is alkalizing.

Method

- Always try to use organic vegetables and high quality salt, sea salt or Himalayan salt, filtered water too. The Lacto-bacilli need plenty of nutrients to do the work.
- Salt is the key to preventing the purification of microorganisms. The amount of salt can vary, the more salt the slower the fermentation and the sourer (more acidic) the result. Too much salt fermentation will not occur.
- Salt keeps the vegetables crunchy and flavourful as well as allowing the right kind of bacteria to flourish
- Rough Guide 3 Tbsp to 5 lbs. of cabbage and or other vegetables
- Slice, by hand, with a mandolin or food processor
- Add salt in layers as you go
- Mix in other vegetables if using, here are some ideas: purple cabbage, onions, daikon, juniper berries, carrots, turnips, nettles, Jerusalem artichokes, seaweed, cumin, black peppercorns. Use your imagination!
- Tamp and cover and weigh down
- For the liquid to provide enough coverage this can take up to 24 hrs. Depending on the cabbage, how old it is etc. Then cover with plate or just screw on a Mason jar lid if using a mason jar.
- If brine does not rise up enough to cover the vegetables add brine water, 1 tbsp. per 250ml water
- Leave in the corner of your kitchen for a week and taste periodically, make sure the cabbage is below the liquid; you can unscrew the lid and relieve some of the pressure that builds then screw back on. Once you have the desired taste place in your fermentation slowing device (fridge!) and the taste will still develop it will keep for months!

