The History and Health Benefits of Sourdough Bread

History

• May date back as far as 3300 BC (Neolithic era) – grinding grains to make a flat bread
• Egyptians were the first civilization to have leavened bread in their diet
• It is the original way to make bread, biscuits and pancakes before the creation of commercial yeast and baking powder

History

• Pioneers and even miners would carry around containers of starter to make their breads and biscuits no matter where they were.
• Sourdough is made from a starter – flour and water that has been fermented by wild yeasts and lactic acid bacteria
• A good starter or “sponge” can last for decades and can be passed down from one generation to another

Sourdough

• The fermentation process changes how the grain is used by the body
• It makes the nutrients in the grains such as zinc, iron, magnesium, B vitamins and phytoneutrients more available to be absorbed into the body and the yeast actually produces the B vitamins (even in white bread)
• It also breaks down the gluten and starches making the bread more digestible

How Does Fermenting Break Down Gluten

• During fermentation, protease and peptidase enzymes act on the gliadin molecule
• Lactic acid bacteria lowers the pH of the sourdough to 3.5-4 which is the optimal pH for some protein enzymes to be active
• One study found that gluten, fully degraded by fermentation was safe for celiacs to consume

Gluten Fermentation

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Sourdough Helps The Gut

Three Ways:
1. Modulate dietary fibre complex, releasing the phytonutrients such as ferulic acid – a potent antioxidant that blocks nitrosamines and makes Vitamin C and E more potent
2. Produces glucan, fructans and gluco- and fructo-oligosaccharides with prebiotic properties
3. Provides metabolites from LAB fermentation which influence gut microbiota such as butyrate.

Health Benefits

• Provides a lower blood sugar and insulin response
• One study found that sourdough in one meal for positively affect blood sugar for that meal and the next (breakfast may be the best time)
• This effect was with white sourdough and was more effective for blood sugar than regular whole wheat

Health Benefits

• One possible reason for low glucose response is sourdough delays the gastric emptying – it slows the uptake into the blood stream
• Lactic acid bacteria ferments dextran in wheat and gut bacteria converts it to propionic acid, which has several potential beneficial effects such as reduced cholesterol and triglyceride levels, and increased insulin sensitivity.
• Dextrin helps good bacteria levels

Health Benefits

• Fermenting lowers the phytic acid content making minerals such as zinc, calcium and iron more available
• Fermenting also lowers symptoms in IBS sufferers, who are bothered by wheat
• Fermenting also produces more butyric acid (butyrate) which helps protect the gut and reduce inflammation

Final Thoughts

• Current research is trying understanding how sourdough works and how it aids digestion and health
• It is a complex process that ferments the grains and transform the product into something far more beneficial – how much more is still to be discovered
• In the meantime, learning to make sourdough is well worth your while.

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