

IN THIS
MENTOR
SESSION:

- Are you at risk because of too much acid?
- What is the level of AGE in your body?

INSIDE THIS
ISSUE:

Acid versus alkaline	1
Enter AGE!	2
How to make acid	2
What to exclude?	3
Alkaline forming foods	4
Acid forming foods	5
References	6
References	7

Health Mentor Programme - Operation 'Super-gut' part 3

MENTOR SESSION 35

Too acid?

Every second of the day there are thousands of processes happening in the human body that make life possible.

Some processes, though, need finely-tuned real-time control mechanisms to prevent a biochemical crisis! One such mechanism is the **acid/alkaline balance!**

The reason why this mechanism is so important is because some bodily fluids, like your blood, cannot deal with big acid/alkaline differences, which, if not controlled perfectly, could lead to coma or death.

The way that this constant balancing act is maintained is primarily through the lungs and kidneys, but our intestine also has a role to play!



Initially I was sceptical regarding the whole acid/alkaline issue due to the hype and fad diets that I've encountered over the years.

It seems, though, from quality reviews and articles that there is some truth to eating a diet that has the right combination of acid- and alkaline-forming foods. This will assist your body and your intestine to maintain its balance more effectively without placing your body under serious long-term metabolic strain with resulting disease.

The Science

A study that was done on 764 middle-aged and elderly Chinese women²⁷ showed that certain foods can be acid-forming when consumed, thus forcing the body to use calcium to buffer this acid.

This causes more calcium to be found in the urine of the patients, which is a confirmation of previous research examining the same effect.^{28,29}

It also seems that although animal- and plant-based proteins both have an acid forming effect, the animal protein's acidic effect is more.

Stop AGE!

This is probably the most pertinent reason to avoiding a predominantly acid-forming diet ...it has to do with aging!

Enter Advanced Glycated End products!

When a diet is too acid-forming something called **Advanced Glycated End products (AGE)** can form more readily.^{30,31}

Part of the normal aging process is that our immune system decreases in it's effectiveness due to oxidative damage caused by oxygen radicals. Another issue that helps to speed up this aging process is the formation of glycated protein. This happens when a protein molecule is bound to a glucose molecule and forms a particle that is not recognised by the immune system. Thus, we're back to the whole auto-immune disease problem, which is a major issue when someone has altered intestinal permeability!

The activation of **AGE** is associated with high levels of these dysfunctional glycated proteins in body fluids and tissues and is strongly associated with a series of diseases ranging from allergies and Alzheimer's to rheumatoid arthritis and urogenital disorders.

Besides having a too acid-forming diet, glycated end products can also be formed in food before you eat it.

This happens through:²

- Heat treatment
- Radiation
- Ionisation

Thus, avoid food exposed to these methods.



Too much acid...



It is important to understanding how we can cause even more acid to be formed in our bodies. To remedy this is half the battle won...!

- Too much acid-forming foods in your **diet**
- Stress!** People who have anxiety produce acid.
- Exercising** has an alkalising effect on the body. Over-training has the opposite effect.
- Chronic disease** and **infections**
- Allergic** reactions
- Smoking**
- Not enough **minerals & vitamins** in your diet

Magnesium and phosphorus are necessary for cellular pumps and zinc is intimately involved in the secretion of acid in the stomach and the retention or release of acid in the kidney. Vitamins, like the B vitamins, make sure that carbohydrates and fats are fully metabolised in the body, thus maintaining the appropriate balance in your system.

To exclude or not to?

If you exclude acid-forming foods altogether you can impair your body's ability to balance the acid/alkaline issue, which takes you back to square one!

Meat and animal products contain protein, zinc and phosphorous which are all necessary to assist this balancing act.

The lungs and kidneys, which play the lead roles in acid/alkaline control, need the fat-soluble vitamins found in meats, fish and good quality butter.

(Remember to eat organic!)



What about acid fruits?

Some people may feel that some fruits, like citrus and tomatoes, are acid-forming, but in actual fact they're alkaline-forming!

They become acid-forming in people who have stomach acid and thyroid deficiencies where the metabolism of the fruits is incomplete.

Sort out your intestine and this may improve.

If it still remains a problem you should consult a doctor who can deal with your thyroid and stomach issues.

MAJOR inflammation link

Recently I saw a 37 yr old female patient in my practice with aggressive Rheumatoid arthritis. Besides the fact that she struggled to walk the steps to my rooms she complained of having to use pain medication every day for multiple painful joints. Now get this. After three months on my protocol she is completely pain free and only had to use pain meds once in three months!

How did I do this?

Besides using several supplements and lifestyle modifications the mainstay of pain management is to follow a strict acid/alkaline diet!

Keep a lookout for my full pain protocol which I will make available in the near future.

Acid/alkaline food list

In the next two pages I'll be featuring the acid and alkaline forming foods. (This list was compiled using information from research done in China²⁷, the Life Extension Foundation³⁰ and the Price-Pottenger Foundation³¹.)

Take note that the ideal is to have a diet consisting of 75% alkaline-forming foods and 25% acid-forming foods.

Nightshade family?

Remember that some vegetables form part of the 'nightshade' family and have high purine counts, which could be a problem for gout sufferers. These plants are indicated with a **

Alkaline-forming foods

**** Nightshade plants**

Vegetables

Beetroot
Cauliflower
Garlic
Asparagus
Cucumbers
Fermented vegetables
Broccoli
Mushrooms

Celery
Eggplant**
Carrot
Kale
Lettuce
Chlorella (algae)
Edible flowers
Onions
Peas

Spirulina
Sprouts (all types)
Squashes
Barley grass
Wheat grass
Peppers**
Pumpkins
Brussels sprouts
Cabbage

Fruit

Apple
Apricot
Avocado
Banana
Blackberry
Blueberry

Cherries
Currants
Dates, Figs
Grapes
Grapefruit
Lime

Nectarine
Orange, Lemon
Peach, Pear
Pineapple
Raspberry (all berries)

Naartjie (Tangerine)
Strawberry
Tomato**
Tropical fruits
Watermelon

Animal protein

Free-range eggs
Whey protein powder

Fat-free cottage cheese
Lean chicken breast
Organic yogurt

Beverages

Organic milk
(unpasteurised)

Vegetable juices

Mineral water (non-carbonated)

Fresh fruit juice
(unsweetened—diluted)

Tea

Green tea
Ginseng

Any herbal tea
Kombucha

Spices and seasonings

All herbs
Cinnamon

Curry
Chili peppers

Ginger
Mustard

Miso
Sea salt

Sweeteners

Stevia

General

Apple cider vinegar

Bee pollen
Lecithin granules

Dairy-free probiotic cultures

Nuts & seeds (also protein)

Almonds
Chestnuts

Tofu (fermented)
Flax seeds
Pumpkin seeds
Squash seeds

Sunflower seeds
Millet
Sprouted seeds and nuts

Acid-forming foods

** Nightshade plants

Animal protein

Beef
Venison
Lamb
Pork

Lobster
Mussels
Shrimp
Oysters

Salmon
Fish, white meat
Tuna
Carp

Turkey
Duck

Dairy

Milk
Butter

Cheese, cow, sheep,
goat and processed

Grains

Wheat
Rice cakes

Corn
Barley
Millet

Rice (brown, basmati)
Rye
Oats (rolled)

Wheat
Quinoa

Fats and oils

Avocado oil
Canola oil

Hemp seed oil
Flax oil
Grape seed oil

Olive oil
Safflower oil

Sesame oil
Sunflower oil

Fruits

Cranberries

Nuts & seeds

Cashews

Brazil nuts
Peanuts

Peanut butter
Pecans

Tahini
Walnuts

Pasta

Noodles

Macaroni
Spaghetti

Alcohol

Beer

Spirits
Hard liquor

Wine

Sweets & Sweeteners

Honey

Molasses
Refined sugar
confectionary

Syrup
Saccharin
Aspartame

Flavoured water
Sugar-based cold drinks

Chemicals

Pesticides

Herbicides

General

Distilled vinegar

Brewers yeast
Wheat germ

Potatoes**

Coffee (this is powerful acid stuff!)

Beans & legumes

Lentils
Chick peas
Rice milk

Green peas
White, black, red,
pinto, lima, kidney
beans

Soya beans
Soya milk

References

- 1) Logan AC, Venket Rao A, Irani D. Chronic fatigue syndrome: lactic acid bacteria may be of therapeutic value. *Med Hypotheses*. 2003 Jun;60(6):915-23.
- 2) Bengmark S. Advanced glycation and lipoxidation end products amplifiers of inflammation: the role of food. *JPEN J Parenter Enteral Nutr*. 2007 Sep-Oct;31(5):430-40.
- 3) Ilja CW Arts IJW, Hollman PCH. Polyphenols and disease risk in epidemiologic studies. *Am J Clin Nutr*. 2005 Jan;81(1 Suppl):317S-325S.
- 4) Knekt P, Kumpulainen J, Järvinen R, Rissanen H, Heliövaara M, Reunanen A. Flavonoid intake and risk of chronic diseases. *Am J Clin Nutr* 2002 Sept;76(3):560-568.
- 5) Knekt P, Järvinen R, Seppänen R, et al. Dietary flavonoids and the risk of lung cancer and other malignant neoplasms. *Am J Epidemiol* 1997;146:223–30.
- 6) Strom SS, Yamamura Y, Duphorne CM, et al. Phytoestrogen intake and prostate cancer: a case-control study using a new database. *Nutr Cancer* 1999;33:20–5.
- 7) Law MR, Morris JK. By how much does fruit and vegetable consumption reduce the risk of ischaemic heart disease? *Eur J Clin Nutr*. 1998 Aug;52(8):549-56.
- 8) Arts ICW, Jacobs DR Jr, Harnack LJ, Gross M, Folsom AR. Dietary catechins in relation to coronary heart disease death among postmenopausal women. *Epidemiology* 2001;12:668–75.
- 9) Yochum L, Kushi LH, Meyer K, Folsom AR. Dietary flavonoid intake and risk of cardiovascular disease in postmenopausal women. *Am J Epidemiol* 1999;149:943–9.
- 10) Vanharanta M, Voutilainen S, Rissanen TH, Adlercreutz H, Salonen JT. Risk of cardiovascular disease-related and all-cause death according to serum concentrations of enterolactone: Kuopio Ischaemic Heart Disease Risk Factor Study. *Arch Intern Med* 2003;163:1099–104.
- 11) Hirvonen T, Virtamo J, Korhonen P, Albanes D, Pietinen P. Intake of flavonoids, carotenoids, vitamins C and E, and risk of stroke in male smokers. *Stroke* 2000;31:2301–6.
- 12) Russel R. What the bible says about healthy living. 2nd ed. England: Candle books; 1999.
- 13) Sun J, Chu YF, Wu X, Liu RH. Antioxidant and antiproliferative activities of common fruits. *J Agric Food Chem*. 2002 Dec 4;50(25):7449-54.
- 14) Madden JA et al. Effect of probiotics on preventing disruption of the intestinal microflora following antibiotic therapy: a double-blind, placebo-controlled pilot study. *Int Immunopharmacol*. 2005 Jun;5(6):1091-7.
- 15) Saggioro A. Probiotics in the treatment of irritable bowel syndrome. *J Clin Gastroenterol*. 2004 Jul;38(6 Suppl):S104-6.
- 16) Kirchgatterer A, Knoflach P. [Natural therapy instead of chemistry? Probiotics in gastroenterology] *Acta Med Austriaca*. 2004 Feb;31(1):13-7.
- 17) Brown AC, Valiere A. Probiotics and medical nutrition therapy. *Nutr Clin Care*. 2004 Apr-Jun;7(2):56-68.

References

- 18) Bell SG. Immunomodulation, Part V: probiotics. *Neonatal Netw.* 2007 Jan-Feb;26(1):57-60.
- 19) Brown AC, Valiere A. Probiotics and medical nutrition therapy. *Nutr Clin Care.* 2004 Apr-Jun;7(2):56-68.
- 20) Isolauri E et al. Probiotics: effects on immunity. *Am J Clin Nutr.* 2001 Feb;73(2 Suppl):444S-450S.
- 21) Bruce AWW, Reid G. Probiotics and the urologist. *Can J Urol.* 2003 Apr;10(2):1785-9.
- 22) Williams AB et al. Evaluation of two self-care treatments for prevention of vaginal candidiasis in women with HIV. *J Assoc Nurses AIDS Care.* 2001 Jul-Aug;12(4):51-7.
- 23) Shalev E. Ingestion of yogurt containing *Lactobacillus acidophilus* compared with pasteurized yogurt as prophylaxis for recurrent candidal vaginitis and bacterial vaginosis. *Arch Fam Med.* 1996 Nov-Dec;5(10):593-6.
- 24) Hilton E et al. Ingestion of yogurt containing *Lactobacillus acidophilus* as prophylaxis for candidal vaginitis. *Ann Intern Med.* 1992 Mar 1;116(5):353-7.
- 25) Hallen A, Jarstrand C, Pahlson C. Treatment of bacterial vaginosis with lactobacilli. *Sex Transm Dis.* 1992 May-Jun;19(3):146-8.
- 26) Johannsen E. Urogenital infections and Probiotics. 2004. Unpublished.
- 27) Hu JF, Zhao XH, Parpia B, Campbell TC. Dietary intakes and urinary excretion of calcium and acids: a cross-sectional study of women in China. *Am J Clin Nutr.* 1993 Sep;58(3):398-406.
- 28) Schuette SA, Zemel MB, Linkswiler HM. Studies on the mechanism of protein-induced hypercalciuria in older men and women. *J Nutr.* 1980 Feb;110(2):305-15.
- 29) Allen LH, Bartlett RS, Block GD. Reduction of renal calcium reabsorption in man by consumption of dietary protein. *J Nutr.* 1979 Aug;109(8):1345-50.
- 30) Life Extension Foundation [homepage on the Internet]. Ft. Lauderdale: Lef.org; c1995-2007 [about 4 screens]. Available from: <http://www.lef.org/>
- 31) Price-Pottenger Nutrition Foundation [homepage on the Internet]. Ft. Lauderdale: Lef.org; c1997-2007 [about 1 screen]. Available from: http://www.ppnf.org/catalog/ppnf/Articles/Acid_alk_bal.htm

About Dr Anton



Dr Anton Janse van Rensburg is a practising medical doctor who has devoted himself to the study of unique, scientifically sound solutions to modern diseases. He is also a qualified metal toxicologist and has a master's degree in Applied Human Nutrition.

He has written on a variety of wellness topics for numerous South African magazines and newspapers and in 2009 co-authored the book 'Diamonds in the Dust – crafting your future landscape'. Dr Anton is no stranger to radio and has been able to guide scores of listeners with his passion for wellness education.

Dr Anton is an established public speaker and is also a wellness coach to company executives. He specialises in motivating people to adopt healthier habits through well researched lifestyle and food approaches.

Want more!?



Dr Anton



@Dr_Anton



Disclaimers and notices:

All the 'sessions' in The Mentoring Programme are copyright to Dr Anton Janse van Rensburg. Distribution without prior consent is strictly prohibited.

The information contained in these sessions are not intended to replace the attention or advice of a physician or other health care professionals. Anyone who wishes to embark on a dietary or supplement protocol contained in this document should first consult a qualified health care professional.