ANTIBIOTICS

(USED TO TREAT **bacterial** INFECTIONS, INCLUDING LEPROSY AND TUBERCULOSIS)

COMMON EXAMPLES:

aminoglycosides (**-mycin, -micin)**
- gentamicin – Cidomycin, Garamycin, and others
- neomycin – Mycifradin, Neo-Fradin, Neo-Tabs
- streptomycin
- **... and others**

anti-tuberculars
- ethambutol – Myambutol
- isoniazid – INH and others
- pyrazinamide – Tebrazid and others
- rifampin – Rifadin and others

cephalosporins (five generations and counting)

chlorhexidine – Oro-Clense, Peridex and others

dapsone – DDS, Aczone, Avlosulfon, Dapsone

fluoroquinolones (-oxacin's)
- ciprofloxacin – Cipro, Ciloxam, and others
- levofloxacin – Iquix, Levaquin, Quixin
- ofloxacin – Floxin, Ocuflox
- **... and others**

furazolidine – Furoxon

linezolid – Zyvox

loracarbef – Lorabid

macrolides
- azithromycin – Zithromax and others
- clarithromycin – Biaxin
- erythromycin – Apo-Erythro, Diomycin, E-Mycin, Erybid, and others
- **... and others**

metronidazole – Apo-Metronidazole, Flagyl, Metro, Nidagel, and others

nitrofurantoin – Furadantin, Macrobid, Macrodantin, Nitro Macro, Urantoin

penicillins – amoxicillin, ampicillin, penicillin, and others

streptogramins (for VRSA)

sulfonamides (sulfa drugs)
sulfasalazine – Azulfidine and others used in Crohn's or ulcerative colitis
sulfamethoxazole – Septra, Gantanol and others
tetracyclines (or any of the many **cyclines**)
trimethoprim – Proloprim
... and many more...

Deplete:

A, beta carotene, B1, B2, B3, B5, B6, B7, B8, B9, B12, C, D, E, K, PABA, glutathione/NAC, choline, calcium, copper, iron, magnesium, potassium, selenium, sodium, zinc, carnitine, good intestinal bacteria, CoQ10

- **Antibiotics have no effect on viruses** so they should not be used for such infections as colds, flu, or most upper respiratory infections. They also have **no effect** on sinus infections since the majority of those are viral infections.

  *Braglia: Research: Antibiotics Will Not Help Your Sinuses. GreenMedInfo newsletter 2012 Feb 21

  *Garbutt et al: Amoxicillin for acute rhinosinusitis: a randomized controlled trial. JAMA 2012 Feb 15;307(7):685-92

  *Nyquist et al: Antibiotic prescribing for children with colds, upper respiratory tract infections, and bronchitis. JAMA 1998 Mar 18;279(11):875-7

- **Antibiotics** literally mean "against life". They kill bacteria, both the bad that is causing an infection and the good that is needed for the immune and digestive systems. Therefore, taking a PRO-biotic ("for life") is vital to rebuilding the immune system so that it can naturally fight off invaders - of the bacterial kind. (see more on Probiotics below)

- **Antibiotics** promote obesity, especially in children.

  *Mercola: This Commonly Used Drug Found to Promote Obesity. Nov 24, 2011

- **Drug-resistant infections** are causing grave concern and for good reason. The main cause is over-use of antibiotics which have been found in meat, milk, and community water supplies. As a result, there is an increase in 'superbugs' – those that mutate and become antibiotic-resistant. Therefore, use antibiotics only when absolutely necessary and then replenish your system with the nutrients they destroy, especially PRObiotics.

Suggested alternatives:

Acacia gum, Arjuna, Clove, Cinnamon, and **Eucalyptus** have strong antimicrobial activity against several multi-strain resistant bacteria.

*Khan et al: Antimicrobial activity of five herbal extracts against multi drug resistant (MDR) strains of bacteria and fungus of clinical origin. Molecules 2009 Feb 4;14(2):586-97

Aloe vera has some anti-bacterial effects.

*****Ferro et al: In vitro susceptibilities of Shigella flexneri and Streptococcus pyogenes to inner gel of Aloe barbadensis Miller. Antimicrob Agents Chemother 2003 Mar;47(3):1137-9

*****Shilpakala et al: Susceptibilities of Escherichia coli and Staphylococcus aureus to Aloe barbadensis. Cochrane Database Syst Rev 2002(2):CD001480

*****Alpinia galanga, a member of the ginger family, is effective against several drug-resistant bacteria.

*****Latha et al: Antiplasmid activity of 1'-acetoxychavicol acetate from Alpinia galanga against multi-drug resistant bacteria. J Ethnopharmacol 2009 Jun 25;123(3):522-5

Angelica (Dong quai) has signifcant anti-Tubercular activity.

*****Deng et al: Anti-TB polyynes from the roots of Angelica sinensis. Phytother Res 2005 Sep;19(9):733-9

Apples reduce the side effects caused by the cholera vaccine and with **Hops**, protects ligament cells in the mouth. Buy only **organic** apples as they are the #1 food that contains pesticides, many of which cause cancer.

*****Apples worst for pesticides on produce list. CBC News, Jun 14, 2011

*****DeNoon: Apples Are Top Food With Most Pesticides: 'Dirty Dozen' List Reveals Fruits/Veggies With Most Pesticides. WebMD Health News June 13, 2011

*****Inaba et al: Apple- and hop-polyphenols protect periodontal ligament cells stimulated with enamel matrix derivative from Porphyromonas gingivalis. J Periodontol 2005 Dec;76(12):2223-9

*****Shabecoff: 100 Chemicals for Apples Add Up to Enigma on Safety. NY Times Feb 5, 1989

*****The Full List: 53 Fruits and Veggies. Environmental Working Group. www.ewg.org/foodnews/list/

*****Yoshino et al: Co-administration of cholera toxin and apple polyphenol extract as a novel and safe mucosal adjuvant strategy. Vaccine 2009 Jul 30;27(35):4808-17

Astragalus is an herb that enhances the immune system in TB patients as well as children with recurring tonsilitis.

*****Xu et al: Effects of Astragalus polysaccharides and astragalosides on the phagocytosis of Mycobacterium tuberculosis by macrophages. Biomed Res 2011;32(1):19-28

*****Yang et al: Effects of astragalus membranaceus on TH cell subset function in children with recurrent tonsillitis. Phytother Res 1999 Jun;13(4):349-51

Avocado has antioxidant and anti-microbial effects.

*****Chia & Dykes: Antimicrobial activity of crude epicarp and seed extracts from mature avocado fruit (Persea americana) of three cultivars. Pharm Biol 2010 Jul;48(7):753-6

*****Rodríguez-Carpena et al: Avocado (Persea americana Mill.) phenolics, in vitro antioxidant and antimicrobial activities, and inhibition of lipid and protein oxidation in porcine patties. J Agric Food Chem 2011 May 25;59(10):5625-35

Bay leaf is effective against MRSA (Methicillin-resistant Staphylococcus aureus).

*****Otsuka et al: Anti-methicillin resistant Staphylococcus aureus (MRSA) compounds isolated from Laurus nobilis. Biol Pharm Bull 2008 Sep;31(9):1794-7

Bee propolis, including the potent Brazilian green bee propolis, is effective against MRSA and other bacterial strains and in preventing ear infections in children chronically prone to them.

*****Campana et al: Antimicrobial activity of two propolis samples against human Campylobacter jejuni. J Med Food 2009 Oct;12(5):1050-6

*****Leitão et al: Comparative evaluation of in-vitro effects of Brazilian green propolis and Baccharis dracunculifolia extracts on cariogenic factors of Streptococcus mutans. Biol Pharm Bull 2004 Nov;27(11):1834-9

*****Marchisio et al: Effectiveness of a propolis and zinc solution in preventing acute otitis media in children with a history of recurrent acute otitis media. Int J Immunopathol Pharmacol 2010 Apr-Jun;23(2):567-75

*****Raghukumar et al: Antimethicillin-resistant Staphylococcus aureus (MRSA) activity of 'pacific propolis' and isolated prenylflavanones. Aliment Pharmacol Ther 1998 Dec;12(12):1279-89

*****Ugur et al: Antimicrobial effects of propolis extracts on Escherichia coli and Staphylococcus aureus strains resistant to various antibiotics and some microorganisms. J Med Food 2000;3(4):173-80

Beetroot, Apple and **Citrus pectins** have anti-bacterial activity against the staphylococcal bacteria.

*****Fluer et al: Influence of various pectins on production of staphylococcal enterotoxins types A and B]. Zh Mikrobiol Epidemiol Immunobiol 2007 Nov-Dec(6):11-6

Berberine-containing plants (Barberry, Goldenseal, Goldenthread, Oregon grape) are strong anti-microbials (against bacteria, viruses, fungi, protozoans, helminths, and chlamydia). They also have anti-cancer benefits.

*****Hwang et al: Antimicrobial constituents from goldenseal (the Rhizomes of Hydrastis canadensis) against selected oral pathogens. Planta Med 2003 Jul;69(7):623-7

*****Lin et al: In vitro anti-hepatoma activity of fifteen natural medicines from Canada. Altern Med Rev 2000 Apr;5(2):175-7

*****Mahady et al: In vitro susceptibility of Helicobacter pylori to isoquinoline alkaloids from Sanguinaria canadensis and Hydrastis canadensis. J Med Food 2007 Dec;10(4):694-701

*****Serafim et al: Different concentrations of berberine result in distinct cellular localization patterns and cell cycle effects in a melanoma cell line. Cancer Chemother Pharmacol 2008 May;61(6):1007-18

Beta Glucans are polysaccharides derived from oats, mushrooms, barley or yeasts. Beta glucans are particularly effective for priming and **normalizing** the immune system and protecting the body against a number of pathogenic bacteria.

*****Aviles et al: Active hexose correlated compound enhances resistance to Klebsiella pneumoniae infection in mice in the hindlimb-unloading model of spaceflight conditions. J Appl Physiol 2003 Aug;95(2):491-6

*****Kernodle et al: Prophylactic anti-infective activity of poly-(1-6)-beta-D—Glucapyranosyl-(1-3)-beta-D-glucapy-ranose glucan in a guinea pig model of Staphylococcal wound infection. Antimicrob Ag Chemother 1998;42:545-49

*****Lahnborg et al: The effect of glucan—a host resistance activator—and ampicillin on experimental intra-abdominal sepsis. J Reticuloendothel Soc 1982;32:347-53

*****Rasmussen et al: Killing of Escherichia coli by mononuclear phagocytes and neutrophils stimulated in vitro with beta-1, 3-D-polyglucose derivatives. Microbiol Immunol 1992;36(11):1173-88

*****Rasmussen & Seljelid: Dynamics of blood components and peritoneal fluid during treatment of murine E. coli sepsis with beta-1, 3-D-polyglucose derivatives. I: Cells. Scand J Immunol 1990 Oct;32(4):321-31

*****Rasmussen & Seljelid: Dynamics of blood components and peritoneal fluid during treatment of murine E. coli sepsis with beta-1, 3-D-polyglucose derivatives. II. Interleukin 1, tumor necrosis factor, prostaglandin E2 and leukotriene B4, Scand J Immunol 1990 Oct;32(4):333-40

*****Rasmussen et al: Dynamics of blood components and peritoneal fluid during treatment of murine E. coli sepsis with beta-1, 3-D-polyglucose derivatives. Scand J Immunol 1985;63:73-80

*****Williams & Diluzio: Glucan induced modification of experimental Staphylococcus aureus infection in normal, leukemic and immunosuppressed mice. Adv Exp Med Biol 1979;121(A):291-306

Black Cumin Seed is an effective anti-bacterial against MRSA.

*****Hannan et al: Anti bacterial activity of Nigella sativa against clinical isolates of methicillin resistant Staphylococcus aureus. J Ayub Med Coll Abbottabad 2008 Jul-Sep;20(3):72-4

Capsaicin, from hot peppers, is effective against the cholera bacterium.

*****Chatterjee et al: Capsaicin, a potential inhibitor of cholera toxin production in Vibrio cholerae. FEMS Microbiol Lett 2010 May;306(1):54-60

Carotenoids, from red, yellow, orange and dark green fruits and vegetables) are effective against a variety of drug-resistant bacteria including H. Pylori, often blamed for causing stomach ulcers.

*****Molnár et al: Biological activity of carotenoids in red paprika, Valencia orange and Golden delicious apple. Phytother Res 2005 Aug;19(8):700-7

Catnip is an herb that is effective against Staphylococcus aureus.

*****Nostro et al: The effect of Nepeta cataria extract on adherence and enzyme production of Staphylococcus aureus. Int J Antimicrob Agents 2001 Dec;18(6):583-5

Cat's Claw is an herb that boosts the immune system but it also has antibacterial activity.

*****Ccahuana-Vasquez et al: Antimicrobial activity of Uncaria tomentosa against oral human pathogens. Braz Oral Res 2007 Jan-Mar;21(1):46-50

*****Eberlin et al: Uncaria tomentosa extract increases the number of myeloid progenitor cells in the bone marrow of mice infected with Listeria monocytogenes. Int Immunopharmacol 2005 Jul;5(7-8):1235-46

Cinnamon and **Oregano** are effective against antibiotic-resistant Campylobacter.

*****Ravishankar et al: Plant-derived compounds inactivate antibiotic-resistant Campylobacter jejuni strains. J Food Prot 2008 Jun;71(6):1145-9

Clove inhibits various bacteria and other pathogens.

*****Bhamarapravati et al: Extracts of spice and food plants from Thai traditional medicine inhibit the growth of the human carcinogen Helicobacter pylori. Indian J Ophthalmol 2009 May-Jun;57(3):185-9

*****Wu et al: Compounds from Syzygium aromaticum possessing growth inhibitory activity against oral pathogens. J Nat Prod 1996 Oct;59(10):987-90

Clove, Guava and **Lemongrass** increase effects of antimicrobial drugs.

*****Betoni et al: Synergism between plant extract and antimicrobial drugs used on Staphylococcus aureus diseases. Mem Inst Oswaldo Cruz 2006 Jun;101(4):387-90

Clove and **Holy Basil** protect the body against Klebsiella bacteria.

*****Saini et al: Induction of resistance to respiratory tract infection with Klebsiella pneumoniae in mice fed on a diet supplemented with tulsi (Ocimum sanctum) and clove (Syzgium aromaticum) oils. J Microbiol Immunol Infect 2009 Apr;42(2):107-13

Coconut water has antimicrobial effects.

*****Mandal et al: Identification and structural insights of three novel antimicrobial peptides isolated from green coconut water. Peptides 2009 Apr;30(4):633-7

Colloidal Silver inhibits several drug-resistant strains of bacteria including Pseudomonas aeruginosa and Aeromonas hydrophilia in tap water, possibly replacing the need for chlorine.

*****Bhattacharyya & Bradley: A case report of the use of nanocrystalline silver dressing in the management of acute surgical site wound infected with MRSA to prevent cutaneous necrosis following revision surgery. Int J Low Extrem Wounds 2008 Mar;7(1):45-8

*****Edwards-Jones: Antimicrobial and barrier effects of silver against methicillin-resistant Staphylococcus aureus. J Wound Care 2006 Jul;15(7):285-90

*****Panacek et al: Silver colloid nanoparticles: synthesis, characterization, and their antibacterial activity. J Phys Chem B 2006 Aug 24;110(33):16248-53

*****Silvestry-Rodriguez et al: Inactivation of Pseudomonas aeruginosa and Aeromonas hydrophila by silver in tap water. J Environ Sci Health A Tox Hazard Subst Environ Eng 2007 Sep;42(11):1579-84

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