



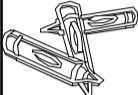
**Nutritional Issues in Children:
Obesity, Allergies and Asthma**

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April 3, 2008



Fred Pescatore, MD, MPH

- Author of *“Feed Your Kids Well”*, *“Thin for Good”*, *“The Allergy and Asthma Cure”*, *“The Hamptons Diet”* and *“The Hamptons Diet Cookbook”*
- Private Practice in New York City
- President of the International and American Association of Clinical Nutritionists

BIZARRO By Dan Piraro

My doctor said I'm getting way too much fat & cholesterol in my diet. So from now on, AMERICAN KIDS are strictly OFF LIMITS.

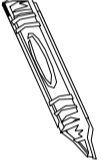
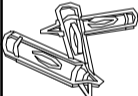


PIRARO 3-12-02 BIZARRO.com Doc. © Universal Uclick




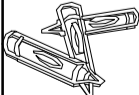

The Current State of Health

- 30% of Children Aged 6 to 11 - overweight
- 15% - obese
- Same for Adolescents
- 79% Likelihood of Being Overweight or Obese Adults
- Children - Obesity has Quadrupled in 25 years
- Adolescents - Doubled in 25 Years
- Equal Ratio Boys to Girls


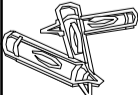
Increase in Obesity Prevalence(%) in Ages 6 to 11

| | Boys | Girls |
|-------------|------|-------|
| 1999 - 2000 | 16 | 14.5 |
| 1988 - 1994 | 11.6 | 11 |
| 1971 - 1974 | 4.3 | 3.6 |

Increase in Obesity Prevalence (%) in Adolescents

| | Boys | Girls |
|-------------|------|-------|
| 1999 - 2000 | 15.5 | 15.5 |
| 1988 - 1994 | 11.3 | 9.7 |
| 1971 - 1974 | 6.1 | 6.2 |

Adverse Health Effects

- Asthma - Prevalence Higher in Overweight
- Diabetes - Type 2:
- 13 x more likely to be Hyperinsulinemic
- **45%** New Cases of Childhood Diabetes is Type 2
- 4% in 1990 - now at **20%** of Total Diabetes in Children
- **1 in 4** Overweight Children Show Signs of Diabetes type 2
- Youngest Reported Case is 7 years old



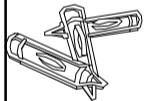
Hypertension

- **60%** Overweight children have One Risk Factor for Heart Disease
- **5 Times** More Likely to have HTN
- Persistently Elevated Blood Pressure
- **9 times** More Likely



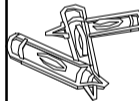
Orthopedic Complications

- Growing Bones not Strong Enough to Support the Excess Weight
- Can Lead to Injuries and Bowing and Overgrowth of Leg Bones
- 30 to 50% of Overweight Children have Hip Pain and limited Range of Motion due to Stress on Hip

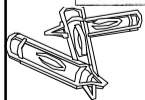
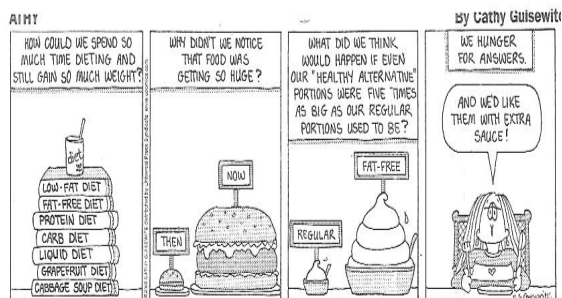


Psychosocial Effects

- Often Taller
- Greater Risk for Subsequent Eating Disorders amongst Girls
- Stigmatization - name calling, teasing, jokes, laziness, unclean, etc.
- **7%** have Sleep Apnea with accompanied Deficits in Logical Thinking and Potential Learning Disorders



The Importance of Baseline Nutrition



Industrial Waste



A Healthy Choice?

HEALTHY CHOICE Beef Tips Portabella with Onions, Mushrooms, Vegetables and Apple Cherry Crisp

| Nutrition Facts | |
|-----------------------------|-----------|
| Serving Size 1/2 Cup (125g) | |
| Amount Per Serving | |
| Total Fat | 15g 30% |
| Sodium | 100mg 20% |
| Total Carbohydrate | 15g 30% |
| Protein | 10g 20% |
| Dietary Fiber 5g 10% | |
| Sugars 5g 10% | |
| Total Fat 15g 30% | |
| Sodium 100mg 20% | |
| Total Carbohydrate 15g 30% | |
| Protein 10g 20% | |
| Dietary Fiber 5g 10% | |
| Sugars 5g 10% | |

Food as an Industry

- Food Industrial Complex: We eat more, companies make more
- Processing Foods Depletes them of Nutrients
- 17,000 New food Products Introduced Each year
- 4 Crops Account for 2/3 of all food Americans Consume: Corn, Wheat, Soybeans and Rice
- Oversupply of Macronutrients and Undersupply of Micronutrients
- Fast Food Industry = 200 Billion in Health Care Costs

History helps put conflicting nutrition advice in perspective Our diet has changed more in the last 100 years than in the previous 10,000!

| Hunter / Gatherer Ancestors | Current |
|---|---|
| <ul style="list-style-type: none"> • Health. According to skeletal record, although at the mercy of the elements and predators, were healthy and strong, with good bones, joints and teeth that did not need fillings or braces | <ul style="list-style-type: none"> • HealthCare Crisis. Despite spending more than any other country on medical care, US is 20th to 30th down the list of countries on most measures of health. Chronic disease is rampant. Obesity and diabetes are epidemic. |
| <ul style="list-style-type: none"> • Quite varied, ate what they found - Nuts, seeds, vegetables, greens, roots, berries, rare non-sweet fruits, eggs, fish & wild game animals that fed on vegetation. Variety of ingredients means varied nutrients and less exposure to the downsides of a particular food. • Foods in season • From local area • Picked when ripe (when nutrients fully developed) • Organic and naturally-occurring • Free of chemical preservatives, dough conditioners, etc. • Naturally flavored • Fresh (full nutrient value) • Raw (enzymes and nutrients intact) • Whole (e.g. veg. eatables) • Nutrient-dense (e.g. a yam) • Calorie-poor (an apple was like a crab apple, eaten whole) | <ul style="list-style-type: none"> • Same few ingredients repeated in different combinations - white flour, sugar, hydrogenated fat, chemicals, processed cheese-food. Potatoes (as French fries) and tomatoes (as catsup) are the main vegetables. Protein is mainly grain fed, hormone & antibiotic laden chicken or beef. * • Year round availability • Foods from anywhere in the world • Picked for business reasons (e.g. green before complete) • Contaminated, genetically-engineered • Several lbs of food chemicals per person per year • Artificially flavored and chemically enhanced (e.g. MSG) • Shipped, stored, preserved (loss of nutrients at each step) • Cooked (depend more on body's enzymes) • Refined (parts removed), processed (e.g. pasta) • Nutrient-poor (e.g. Pringles which is just the starch) • Calorie-dense (apple juice - from many apples now sweeter) |
| <ul style="list-style-type: none"> • Omega 6 / 3 fatty acids = 1:1 (6 = vegetable oil, 3 = fish oil) • Natural fats (unadorned) | <ul style="list-style-type: none"> • Omega 6 / 3 = 16:1 (animals and even fish are fed corn) • Trans fats (unnatural fat forms that damage cell membranes) |
| <ul style="list-style-type: none"> • Fat prized for its energy and help with utilizing protein • Grains not used because inedible without processing • Sugar virtually unavailable • Foods had low glycemic effect (low glycemic index) • Naturally-occurring vitamins, absorbable minerals | <ul style="list-style-type: none"> • Fat feared (fat based more on politics than science) • Food pyramid calls for 6-11 servings per day of grains • Average consumption is 150 pounds per person per year • High glycemic effect, e.g. starch raises blood sugar fast • Synthetics added (less than removed - some poorly) |

Key Nutrition

- Most Recent Study Comparing Low Fat (Ornish) with Low Carbohydrate (Atkins), AHA, and Low Calorie Showed a Clear Winner = Low Carbohydrate
- Greater Sustained Weight Loss and Decrease in CVD Risk Factors
- Walter Willet - Low Carbohydrate with Low Glycemic Load = Hamptons Diet
- Mediterranean Wellness Approach to Weight Control

Our Grandparents Were Right!

- Lean Proteins
- Vegetables
- Whole Grains
- Fruits
- Healthy Fats
- Nuts and Seeds
- Whole Foods - Minimally Processed and Optimally Nutritious
- Fresh, Local, and Seasonal if Possible

The Truth About Fats

- Most Important Part of the Food Chain
- Eliminate Trans Fats
- Avoid Processed and Damaged Oils
- Reduce Pro-Inflammatory Omega 6
- Increase Anti-Inflammatory Omega 3
- Emphasize Monounsaturated Fats
- According to the NCEP **80%** of the Fats in the Diet should be **monounsaturated**
- American Journal of Cardiology - landmark study on Inflammation and Monos

Monounsaturated Fat Sources

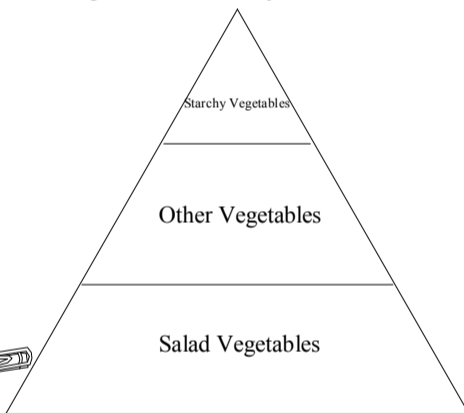
- Avocados
- Sunflower Seeds
- Macadamia Nut Oil
- Olives
- Some Nuts
- Avoid Heating Olive Oil



The Truth About Carbohydrates

- Not all are Created Equal
- Fruits
- Vegetables
- Grains
- Legumes
- Nuts
- Seeds
- Sugar

Vegetable Pyramid



Fruits

- Encourage consumption of Lower Sugar Fruit
 - Avoid Tropical Fruit
 - One Banana = 6 teaspoons of Sugar



Pasta Anyone?

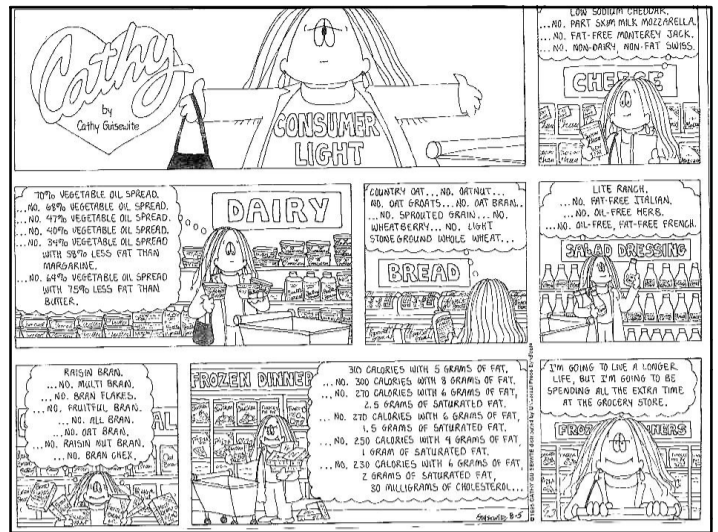


Grains

- Whole Grains - Low glycemic load
- Glycemic **Load** vs Glycemic **Index**
- “Whole” - the word must appear in the ingredients list
- Brown Rice, amaranth, buckwheat, quinoa, spelt, oats, etc.

Proteins

- Lean Protein - wild fish, poultry, pork, lamb and other red meats
- Decrease emphasis on processed meats such as bacon and sausages
- Cheeses, Nuts, and Seeds
- Whole Foods - not Protein Isolates
- Beans and Bean Products - adzuki, broad, kidney, lentils, chickpeas, peas, tofu, etc.
- Sea Vegetables - dulse, arame, hijiki, kombu, hakame and nori



Asthma

- Most Common Chronic Disease of Childhood
- **5 Million** Under the age of 18 (1 in 20)
- 200,000 hospital stays - **3rd leading cause**
- 340 deaths per year < 25 years old
- Rate doubled since 1993
- Boys > Girls
- Leading Cause of school absenteeism, **14 million** total missed school days

Allergy

- Allergies are defined by what causes them (inhalant, infectious, insect, drug, physical agent(cold), contact, food)
- Allergies are defined by their symptoms (hay fever, eczema, hives, skin rashes, rosacea, anaphylactic shock)

Food Sensitivities

- Food Sensitivities – **allergies** vs. **sensitivities**
- Possibly the most under-diagnosed medical problem in history
- Food additives
 - artificial/natural colorings
 - artificial flavorings
 - sweeteners
 - preservatives or any other chemical

| | |
|--|----------------------|
| Dark circles under eyes | Constipation |
| Runny nose | Short attention span |
| Post nasal drip | Poor school habits |
| Throat tickle | Nausea |
| Difficulty getting to sleep or waking up | |

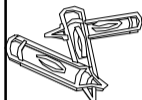
Testing for Food Sensitivities

- RAST - only tests IGE; sensitivities not IGE
- Cytotoxic - tests food products that are not predigested so many false negatives; varies from user to user
- Histamine Release - dependent on production of histamine
- ALCAT - this is my favorite right now; predigested food allergens -measures multiple components of the allergy pathway such as C3, C4, IGG, IGA and IGM

General Elimination Diet

Dairy:

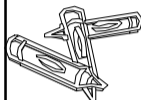
All milk, cheeses, butter, ghee, margarine, sherbet, creamed soups, puddings, whey, casein, calcium supplements, protein bars, energy bars



General Elimination Diet

Wheat:

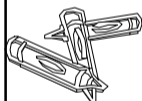
Gluten and non-gluten grains (millet, rice, amaranth, teff, spelt, quinoa, wild rice, barley, buckwheat, oats, rye, whiskey, liverwurst, bologna, mayonnaise, chocolate)



General Elimination Diet

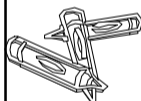
Other:

Cocoa, cocoa butter, cola drinks, carob, tannic acid teas, coffee, all caffeinated and decaf products, dark breads



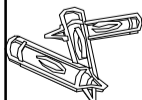
Salicylate Elimination

- Aspirin
- Artificial and natural colorings
- Preservatives
- EDTA, BHA
- Sodium sulfite
- Sodium lauryl sulfate
- MSG
- ASA
- Raisins
- Nectarines
- Oranges
- Peaches
- Plums
- Almonds
- Apples
- Apricots
- Berries
- Cherries
- Cucumbers
- Pickles
- Currants
- Grapes
- Prunes
- Tomatoes
- Margarine
- Breakfast cereals
- Jams & jellies
- Lunch meats
- Toothpaste



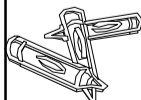
Salicylate 2 Elimination

- Mint flavors
- Gelatin products
- Candy
- Cake mixes
- Bakery products
- Frankfurters
- Mint flavorings, including wintergreen
- Red/White Wine
- Red/White Wine Vinegar
- Apple cider
- Apple cider vinegar
- Soft drinks
- Diet drinks
- Tea
- Beer
- Kool-Aid type products
- Gin and most distilled beverages except vodka
- Throat lozenges
- Perfumes
- Mouthwash
- Tartrazine



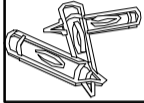
Corn Elimination

- Corn - hardest one
- all processed foods
- High fructose corn syrup
- Corn starch
- Corn oil
- Corn meal
- Grits
- Adhesives
- Aspirin
- Paper cups
- Paper cartons
- Gelatin capsules
- Gum on envelopes, stickers, stamps, tapes, labels
- Spray starch
- Peanut Butter
- Bath and body powders
- Throat lozenges
- Plastic food wrappers
- Some toothpastes
- Paper plates
- Brandy
- Bacon
- Baking mixes
- Ketchup
- Baking powders
- Instant coffee
- Powdered sugar
- Pickles
- Leavening agents
- Gelatin desserts
- Yeast
- Gum
- Gin
- Corn chips
- Cured hams



The Allergy & Asthma Cure

- **Find** Triggers and Remove Allergens
- Initiate a **Healthy Diet**
- Remove Candida
- Repair and Heal the Gut
- Nutritional Supplements



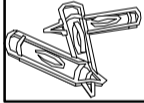
Repair and Heal the Gut

- GI tract harbors **100,000 billion** viable bacteria
- Between 33 and 50% of fecal mass is bacteria
- Between 20 and 40% of colonic microflora are unculturable and thus unknown
- Intestinal microflora is fully formed by age 2
- Different microbial types found in different parts of the GI tract



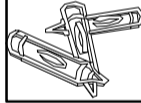
Typical Microbial Flora

- Mouth/Stomach - Lactobacilli
- Duodenum - Lactobacilli/Streptococci
- Jejunum - Lactobacilli; Streptococci; Enterobacteria; Bifidobacteria; Yeasts
- Ileum - Bifidobacteria; lactobacilli; streptococci; bacteroides; enterobacteria
- Large Intestine - Bacteroides; Eubacteria; Bifidobacteria; Anaerobic cocci; Clostridia; lactobacilli; enterobacteria; Streptococci



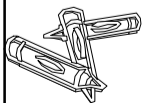
Is a Healthy Flora Necessary?

- Can detoxify and transform substances
- Binds heavy metals for excretion
- Releases lignases and phytoestrogens
- Release quercetin and rutin
- Releases polyphenols
- Can Suppress or Stimulate cytochrome P450



Microbial Flora Function

- Essential to normal physiologic and anatomic development of the intestinal mucosa
- Provides Immunological Protection against Infection
- Stimulates Maturation and Balancing of the Immune System at birth and then stimulates and primes immune system throughout life
- Facilitates a variety of metabolic functions



The Role of Nutritional Supplements

“The preservation of good health and the treatment of disease by varying the concentrations in the human body of substances that are normally present in the body and are required for health”

-Linus Pauling



MultiVitamin

Supplement Facts

| Serving Size: 2 Tablets | | Servings Per Container: 30 | |
|--|--------------------|----------------------------|-------|
| | Amount Per Serving | % Daily Value | % RDA |
| 2 tablets contain | | | |
| Calories | 11 | | <1% |
| Total Carbohydrates | 1 g | | <1% |
| Sugars | 1 g | | |
| Vitamin A (as Natural Beta-Carotene) | 4,000 IU | 80% | 100% |
| Vitamin C | 350 mg | 583% | 875% |
| Ascorbic Acid (as Ascorbic Acid) | 350 mg | 100% | 100% |
| Vitamin E (as d-Alpha-Tocopherol Succinate) | 50 IU | 167% | 500% |
| Vitamin K (as Phytonadione) | 10 mcg | 13% | - |
| Thiamine (B1) (as Thiamine HCl) | 10 mg | 200% | 1429% |
| Riboflavin (Vitamin B2) | 10 mg | 588% | 1250% |
| Niacin (as Nicotinamide) | 10 mg | 20% | 111% |
| Vitamin B6 (as Pyridoxine HCl) | 10 mg | 500% | 1429% |
| Folic Acid | 400 mcg | 100% | 200% |
| Vitamin B12 (as Methylcobalamin) | 25 mcg | 417% | 833% |
| Biotin | 30 mcg | 100% | 200% |
| Pantothenic Acid | 10 mg | 100% | 200% |
| as D-Calcium Pantothenate USP | 50 mg | 5% | 6% |
| Iron (as Ferrous Gluconate USP) | 1.25 mg | 7% | 13% |
| Iodine (as Potassium Iodide USP) | 75 mcg | 50% | 100% |
| Magnesium | 50 mg | 13% | 25% |
| as Ascorbate, TBAAC [®] Magnesium Glycinate Chelate | 2.5 mg | 17% | 31% |
| Zinc | 10 mcg | 14% | - |
| as Selenium Glycinate Chelate | 100 mcg | 5% | - |
| Manganese | 25 mcg | 21% | - |
| as TBAAC [®] Manganese Glycinate Chelate | 25 mcg | 1% | - |
| Molybdenum | 25 mcg | <1% | - |
| Potassium | 25 mg | - | - |
| as Potassium Glycinate Complex | 5 mg | - | - |
| Unsat'd | 5 mg | - | - |
| FRSA USP | 100 mg | - | - |
| Vanadyl Sulfate Hydrate | 25 mcg | - | - |
| Vitamin (as Retinyl Palmitate) | 25 mcg | - | - |

- Multivitamin Specifically formulated for growing children
- Chewable
- Strawberry/Kiwi Flavored

Omega 3 Fish Oils

- FDA issued a Qualified Health Claim - "supportive but not conclusive research shows that consumption of EPA and DHA omega 3 fatty acids may reduce the risk for coronary heart disease."
- EPA
- DHA
- ALA

Alpha Linolenic Acid

- Primary vegetarian source of omega 3
- Found primarily in flax seed
- Strong Deficiency in the American Diet
- Need Delta 6 Desaturase to convert ALA to the more active EPA and DHA
- Other co-factors include: vitamins C, B6, B3, zinc and magnesium

Eicosapentaenoic Acid

- Found in cold water fatty fish
 - Salmon
 - Sardines
 - Trout
 - Mackerel
- Anti-inflammatory - important with the rise in inflammatory conditions such as heart disease and diabetes in children
- Dose Range = 100 to 300mg three times/day
- EPA/DHA ratio important - different in adults and children

Docosahexaenoic Acid

- Brain Food
- Human Brain is 60% fat
- DHA is the most Abundant Fat
- Found in Neurons and Protective Myelin Sheaths
- If Deficient, the Brain will not develop the correct neural pathways; essential for eye development
- Increase in ADHD, behavioral disorders, PDD
- Can improve learning, problem-solving skills, focus, concentration, vocabulary and memory
- Dose range: 200mg to 800mg three times per day

Allergy/Asthma Specific

- **Quercetin** - citrus bioflavonoid which inhibits mast cell degranulation; natural antihistamine; fights off an enzyme that neutralizes cortisone, a natural anti-inflammatory; alleviates inflammation and reinforces the immune system
- Dose Range = 100 to 500 mg three times per day

Other Key Nutrients

- **Bromelain** - derived from pineapples, it has mucolytic properties supporting normal mucosal tissue function and enhances the absorption of quercetin; natural anti-inflammatory; dose range 25 to 75 mg three times per day
- **Stinging Nettles Leaf** - blocks enzymes in the arachidonic acid cascade - dose range = 100 to 300 mg three times per day

Another Essential Nutrient

- **N-acetyl Cysteine** - an amino acid which is a natural mucolytic reducing its viscosity; also recharges cellular glutathione - a main antioxidant; used in conventional medical inhalants; complements vitamin C by breaking up the mucous
- Dose Range = 25 to 300 mg three times per day
- May be used in a Nebulizer

Additional Nutrients

- Vitamin C - 75 to 1000 mg three times per day; Acts as an Immune Enhancer, natural anti-histamine and works as a co-factor with other supplements
- Vitamin A - work as an anti-mucolytic; Do not be afraid to dose high; Range from 2000 IU to 10000 IU three times per day
- Vitamin D3 - 100 to 1000 IU three times per day; natural anti-histamine and anti-inflammatory
- Fish Oils - 250 to 750mg three times per day; natural anti-inflammatory

Immune Enhancers

- **Echinacea** - reinforces our natural defenses; supports the ability of the white blood cell to perform its phagocytotic function; targets viral and bacterial invaders; can speed recovery time; does not destroy gut bacteria
- Dose range = 150 - 350 mg standardized herbal extract 3 times per day

Other Immune Enhancers

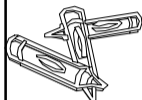
- **Goldenseal** - excellent source of berberine which blocks bacterial growth, yeast overgrowth and some parasites; enhances white blood cell activity; and is especially suited against invaders of the body's mucous membranes

Immune Enhancers

- **Cinammon Bark** - helps to soothe the stomach where much of the mucous in a child ends up due to inability to cough appropriately; flavor enhancer

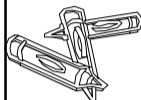
More Immune Enhancers

- **Pau D'Arco** - strong antibacterial, antiviral and antifungal properties; helps to improve immune function (used in cancer therapies)
- **Coriander** - calmative effect on digestive tract and high in polyphenols



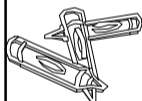
Other Immune Enhancing Agents

- In general look for alcohol free formulas
- Bee Propolis - potent bioflavanoid produced by bees to protect their hive; anti-flu, antimicrobial, antiviral and anti-herpes; upper respiratory infections; anti oxidant - use standardized extracts
- AHCC - medicinal mushroom used in > 700 hospitals in Japan; dose range is 250 to 750 mg three times per day



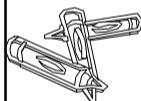
Digestive Tract Repair

- **Saccharomyces boulardii** - proven effective in the prevention and treatment of antibiotic associated diarrheas and in C. difficile recurrent infections; widely used in Europe for the treatment and prevention of any childhood diarrhea
- Dose Range = 25 to 250 mg three times per day
- Prebiotics are important for full effect - fructooligosaccharides



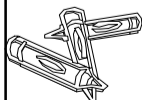
Common Childhood Strains

- Lactobacillus acidophilus
- Lactobacillus rhamnosis
- Bifidobacterium bifidum
- Lactobacillus casei
- Bifidobacterium longum
- Streptococcus thermophilus
- Dose range of at least 5 billion units per day



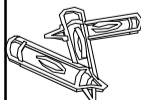
Anti-Candida Supplements

- Garlic - can help to break down the cell wall; dose range 100 to 300 mg t.i.d.
- Caprylic Acid - also helps to break down the cell wall; dose range as above
- Grapefruit Seed Extract - rids the body of the mycelia; dose range 50 to 200 mg t.i.d
- Castor Bean Oil - helps the body to flush the toxins from the fungus as it is dying; dose range 50 to 150 mg three times per day
- Nystatin - a drug but extremely NON toxic; used in range from 100,000 to 1 M units t.i.d



Alternative Medicine?

- In 1990, **425 million** visits were made to providers of "unconventional" therapies - exceeded the number of visits to primary care physicians
- In 1997, **629 million** visits we made to alternative practitioners at a cost of 27 billion - far exceeding the number of visits and out-of-pocket payments to conventional physicians



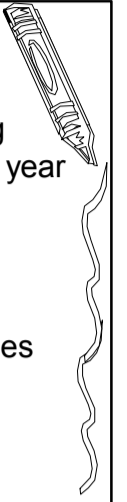
Toxins, Disease and our Children

- Over 200 chemicals linked to birth defects
- Childhood Cancer risen **26%** since 1973
 - NHL by 30%
 - Brain by 21%
- Autism has increased by a factor of 10 since the mid 1980's; up to 1:110 children
- ADHD has increased similarly
- Sperm Counts have decreased; Girls are reaching puberty earlier



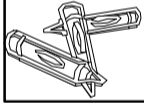
Death by Medicine

- Conventional Medicine is our leading cause of death - 783,936 deaths per year
- 8.9 million unnecessary operations
- 7.5 million superfluous surgeries
- 88,000 nosocomial deaths
- 225,000 deaths from iatrogenic causes

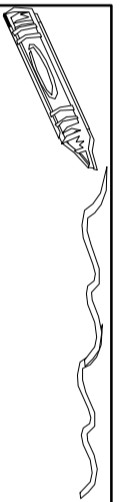
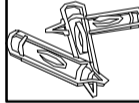


Big Pharma

- Top Ten US pharmaceutical companies have profits that exceed the other 490 companies in the Forbes 500 combined.
- 31% of sales (**217 billion**) spent on marketing
- 14% on R & D
- **3 Billion** spent on DTC
- Lobbyists spent 758 Million
- 1.5 lobbyists per politician
- New Market: Children - fastest growing market for **anti-psychotics**



Children's Nutritional Supplements



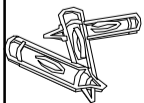
Super Nutes



Supplement Facts

| | Amount Per Serving | % Daily Value |
|---|--------------------|---------------|
| Serving Size: 2 Tablets Servings Per Container: 30 | | |
| 2 tablets contain | | |
| Total Carbohydrates | 4 g | <1% |
| Fibers | | |
| Total Sugars | | |
| Vitamin A (as Natural Beta Carotene) | 4,000 IU | 80% |
| Vitamin C | 200 mg | 200% |
| As Sodium Ascorbate USP, Magnesium Ascorbate, Ascorbic Acid USP | | 47.5% |
| Vitamin D3 (as Cholecalciferol) | 400 IU | 100% |
| Vitamin E | 50 IU | 100% |
| Vitamin K (as Hydroquinone) | 10 mcg | 13% |
| Thiamine (B1 as Thiamine HCl) | 10 mg | 667% |
| Riboflavin (B2 as Riboflavin) | 10 mg | 588% |
| Niacin (as Nicotinamide) | 10 mg | 50% |
| Vitamin B6 (as Pyridoxine HCl) | 10 mg | 500% |
| Folic Acid | 400 mcg | 100% |
| Vitamin B12 (as Methylcobalamin) | 25 mcg | 17.7% |
| Biotin | 30 mcg | 10% |
| Pantothenic Acid | 10 mg | 100% |
| Calcium (as Calcium Pantothenate USP) | 50 mg | 6% |
| Iron (as Ferrous Gluconate USP) | 1.25 mg | 7% |
| Iodine (as Potassium Iodide USP) | 75 mcg | 50% |
| Magnesium (as Ascorbate, TRAAC® Magnesium Glycinate Chelate) | 25 mg | 13% |
| Zinc (as TRAAC® Zinc Glycinate Chelate) | 10 mg | 31% |
| Selenium (as Selenium Glycinate Complex) | 10 mcg | 14% |
| Manganese (as TRAAC® Manganese Glycinate Chelate) | 100 mcg | 5% |
| Copper (as TRAAC® Copper Glycinate Chelate) | 25 mcg | 21% |
| Molybdenum (as TRAAC® Molybdenum Glycinate Chelate) | 25 mcg | 1% |
| Potassium (as Potassium Glycinate Complex) | 25 mg | <1% |
| Propolis | 5 mg | - |
| PARA USP | 5 mg | - |
| Vitamin B12 Succinate Hydrate | 100 mcg | - |
| Isopropyl Palmitate | 20 mg | - |

- Multivitamin Specifically formulated for growing children
- Chewable
- Strawberry/Kiwi Flavored



Orthomega Pearls

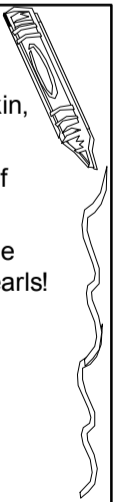


- Supports healthy brain, heart, skin, joints, eyes and immune system!
- Safe- tested for purity and free of contaminants
- Kids love the great tasting orange berry flavor of these chewable pearls!

Supplement Facts

| Serving Size: 4 Soft Gel Capsules Servings Per Container: 30 | | |
|---|--------------------|---------------|
| 4 soft gel capsules contain | Amount Per Serving | % Daily Value |
| DHA | 185 mg | * |
| EPA | 105 mg | * |

* % Daily Value not established



D Hist Junior



Supplement Facts

Serving Size: 1 Tablet
Servings Per Container: 60

| | Amount Per Serving | % Daily Value |
|--|--------------------|---------------|
| 1 tablet contains | | |
| Vitamin C (as Ascorbic Acid USP) | 75 mg | 125% |
| Quercetin | 100 mg | * |
| Stinging Nettles Leaf | 100 mg | * |
| Bromelain (2,400 GDU/g) (from Pineapple) | 25 mg | * |
| N-Acetyl-L-Cysteine USP | 12 mg | * |

* % Daily Value not established

- Sweet Tart Lemon/Lime Taste
- Chewable for Kids
- Top Ingredients for Natural Allergy and Asthma Support

Imu A

Supplement Facts

Serving Size: 10 Drops
Servings Per Container: ~ 150

| | Amount Per Serving | % Daily Value |
|---|--------------------|---------------|
| 10 drops contain | | |
| Proprietary Blend | 13 mg | * |
| <small>Extracts of Echinacea angustifolia and Echinacea purpurea Roots, Aerial Parts and Seeds (from Asteracea Family), Coriander Seed, Psyllid Arzo Inner Bark, Goldenseal Root, Cinnamon Bark</small> | | |
| Minimum Fresh Herb Strength Ratio 1:1 | | * |

* % Daily Value not established
* Originally extracted in spring water and 44-54% pure grain alcohol. Extract transferred to an alcohol-free glycerin base.

- Generally Used in Younger Kids
- Use During Allergy Season
- Use for Colds/Flus
- Used as a Preventative
- Useful for Teething Issues



Imu-Max



- Used in Older Children although may be used in younger ones
- Berry Flavor
- Anti-Inflammatory Properties

Supplement Facts

Serving Size: 1 Teaspoon (~ 5 ml)
Servings Per Container: ~ 50

| | Amount Per Serving | % Daily Value Children Under 4 | % Daily Value Children Over 4 & Adults |
|---|--------------------|--------------------------------|--|
| 1 teaspoon contains | | | |
| Vitamin C | 30 mg | 75% | 50% |
| Proprietary Blend | 450 mg | | |
| <small>Echinacea angustifolia and purpurea</small> | | | |
| <small>Standardized Extract 1:1 (from Asteracea Family)</small> | | | |
| <small>Propolis Standardized Extract 1:5</small> | | | |

* % Daily Value not established

Flora Boost

Supplement Facts

Serving Size: 1.7 Grams (~ 1 Scoop)
Servings Per Container: ~ 30

| | Amount Per Serving | % Daily Value |
|--|--------------------|---------------|
| 1.7 grams contain | | |
| Proprietary Blend | 5 Billion CFU** | * |
| <small>Lactobacillus acidophilus</small> | | |
| <small>Lactobacillus rhamnosus</small> | | |
| <small>Bifidobacterium bifidum</small> | | |
| <small>Lactobacillus casei</small> | | |
| <small>Bifidobacterium longum</small> | | |
| <small>Streptococcus thermophilus</small> | | |
| <small>Saccharomyces boulardii 1 Billion CFU**</small> | | |

* % Daily Value not established



- Formulated Specifically for Growing Guts
- Species from each part of the digestive tract
- Saccharomyces boulardii - added proven benefit for children

