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MESSAGE  
FROM THE  
DIRECTOR

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Auburn University Harrison School of Pharmacy Drug Information Newsletter

Auburn

Volume 4 Issue 1 May 2004

# HealthLink

## New Drugs For 2003

There were 21 new drugs approved by the FDA in 2003. These are detailed in the table in the following pages. There are 23 drugs listed in the table, as we also included a couple of significant biologic products (influenza virus vaccine live, attenuated [*FluMist*] and omalizumab [*Xolair*] a monoclonal antibody). This is approximately the same number approved in 2002 and down from some previous years when over 40 drugs were approved in one year. The FDA had acquired a reputation for approving many applications in the last weeks of December, but that did not happen this year.

Of these 23 agents listed, seven are anti-infectives and three of those are directed at HIV-1 infections. Perhaps the one agent that has received the most attention from this group is the biologic product, *FluMist* (by MedImmune). This is in part due to the amount of publicity surrounding this season's influenza activity and also the product design, at long last an alternative for those patients who avoid vaccinations due to a dislike for needles and injections. It is delivered via a nasal spray. However, unlike the injection form, this is a live, attenuated viral product that poses a theoretical risk of causing influenza infection.

The two new products that have probably stimulated the most general conversation are the selective phosphodiesterase inhibitors for erectile dysfunction, vardenafil (*Levitra* by Bayer) and tadalafil (*Cialis* by Lilly Icos). Sildenafil (*Viagra* by Pfizer) has been the only agent available in this class since 1998 and now suddenly there are three choices. These products are effective in 50-80% of patients, but there are no studies that directly compare them. Tadalafil appears to have a slightly different mechanism with a much longer duration of ac-

tion, which may, or may not translate to patient preference.<sup>1</sup> Judging from the advertising to the general public, it will be a marketing battle of celebrities.

Memantine (Namenda by Forest Labs) has been eagerly awaited as finally, a new therapy for Alzheimer's patients and one that may be effective in moderate Alzheimer's. However, it has been available in Europe for a number of years and is described as modestly effective.<sup>2</sup> Still, one more weapon for such a devastating disease should be of benefit.

Rosuvastatin (*Crestor* by Astra-Zeneca) is another 2003 approval that received its share of promotion and dinner-time conversation. Its primary claims-to-fame are being more potent in lowering LDL cholesterol than other "statins" and it has been priced to be competitive with existing products. See the last issue of Auburn HealthLink for more information on rosuvastatin.<sup>3</sup>

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1. Abramowicz M, ed. Tadalafil (Cialis) for erectile dysfunction. *Med Lett Drugs Ther* 2003 Dec 22;45:101-2.
2. Abramowicz M, ed. Memantine for Alzheimer's disease. *Med Lett Drugs Ther* 2003 Sep 15;45:73-4.
3. Olin BR, Thrower MR, eds. Rosuvastatin: Yet another statin. *Auburn HealthLink* 2003 Oct;3(2):1, 3.



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## New Drug and Biological FDA Approvals for 2003

Brand	Generic Name	Manufacturer	Dosage	Drug Class	Indication	Date of Approval
<i>Aloxi</i>	palonosetron HCl	MGI Pharma Inc <a href="http://www.aloxi.com">www.aloxi.com</a>	Injection	Serotonin type 3 receptor antagonist	Nausea and vomiting associated with cancer chemotherapy	July 25, 2003
<i>Boniva</i>	ibandronate sodium	Roche <a href="http://www.rocheusa.com/products/boniva/">www.rocheusa.com/products/boniva/</a>	Tablet, oral	Bisphosphonate	Prevention and treatment of postmenopausal osteoporosis	May 16, 2003
<i>Cialis</i>	tadalafil	Lilly Icos <a href="http://www.cialis.com">www.cialis.com</a>	Tablet, oral	Selective inhibitor of phosphodiesterase (PDE) 5	Erectile dysfunction	Nov. 21, 2003
<i>Crestor</i>	rosuvastatin calcium	AstraZeneca <a href="http://www.crestor.com">www.crestor.com</a>	Tablet, oral	HMG-CoA reductase inhibitor "statin"	Hyperlipidemia	Aug. 12, 2003
<i>Cubicin</i>	daptomycin	Cubist Pharmaceutical <a href="http://www.cubicin.com">www.cubicin.com</a>	Injection	Cyclic lipopeptide antibiotic	Complicated skin infections	Sept. 12, 2003
<i>Elestat</i>	epinastine HCl	Allergan 1-800-433-8871	Ophthalmic solution	Topical antihistamine	Prevention of itching associated with allergic conjunctivitis	Oct. 16, 2003
<i>Emend</i>	aprepitant	Merck <a href="http://www.emend.com">www.emend.com</a>	Capsule, oral	Neurokinin-1-receptor antagonist	Nausea and vomiting associated with chemotherapy	March 26, 2003
<i>Emtriva</i>	emtricitabine	Gilead Sciences <a href="http://www.emtriva.com">www.emtriva.com</a>	Capsule, oral	Nucleoside reverse transcriptase inhibitor (NRTI)	Treatment of HIV-1 infection in adults	July 2, 2003
<i>Ertaczo</i>	sertaconazole nitrate	Mylan Pharmaceuticals <a href="http://www.fda.gov/cder/foi/label/2003/21385_Ertaczo_lbl.pdf">www.fda.gov/cder/foi/label/2003/21385_Ertaczo_lbl.pdf</a>	Cream	Imidazole antifungal agent	Athlete's foot	Dec. 10, 2003
<i>Factive</i>	gemifloxacin mesylate	LG Life Sciences <a href="http://www.lgls.co.kr/eng/">www.lgls.co.kr/eng/</a>	Tablet, oral	Fluoroquinolone antibiotic	Community-acquired pneumonia, acute bacterial exacerbation of chronic bronchitis	April 4, 2003
<i>Fuzeon</i>	enfuvirtide	Roche <a href="http://www.fuzeon.com">www.fuzeon.com</a>	Injection	HIV fusion inhibitor	Treatment of HIV-1 infection	March 13, 2003
<i>Flumist</i>	Influenza virus vaccine live, attenuated	MedImmune <a href="http://www.medimmune.com">www.medimmune.com</a>	Nasal Mist	Influenza virus vaccine	Active immunization to prevent influenza A and B in healthy children and adults, 5-49 years old	June 17, 2003
<i>Iressa</i>	gefitinib	AstraZeneca <a href="http://www.iressa.com">www.iressa.com</a>	Tablet, oral	Selective epidermal growth factor receptor-tyrosine kinase inhibitor	Non-small cell lung cancer	May 5, 2003

...continued—next pg.

## New Drug and Biological FDA Approvals, continued

Brand	Generic Name	Manufacturer	Dosage Form	Drug Class	Indication	Date of Approval
<i>Levitra</i>	ildenafil	Bayer Pharmaceuticals <a href="http://www.levitra.com">www.levitra.com</a>	Tablet, oral	Selective inhibitor of phosphodiesterase (PDE) 5	Erectile dysfunction	Aug. 19, 2003
<i>Namenda</i>	memantine HCl	Forest Labs <a href="http://www.namenda.com">www.namenda.com</a>	Tablet, oral	N-methyl-D-aspartate (NMDA) receptor antagonist	Moderate to severe Alzheimer's disease	Oct. 16, 2003
<i>Plenaxis</i>	abarelix	Praecis Pharmaceuticals <a href="http://www.plenaxis.com">www.plenaxis.com</a>	Injection	Luteinizing hormone-releasing hormone (LHRH) antagonist	Prostate cancer	Nov. 25, 2003
<i>Radiogardase</i>	prussian blue	HEYL Chemisch-pharmazeutische Fabrik GmbH & Co. <a href="http://www.fda.gov/cder/drug/infopage/prussian_blue/Q&amp;A.htm#14">www.fda.gov/cder/drug/infopage/prussian_blue/Q&amp;A.htm#14</a>	Capsule, oral	Chelators antidote and antagonist	Treatment of known or suspected internal contamination with radioactive cesium, radioactive thallium, or non-radioactive thallium	Oct. 2, 2003
<i>Reyataz</i>	atazanavir sulfate	Bristol-Myers Squibb <a href="http://www.reyataz.com">www.reyataz.com</a>	Capsule, oral	Protease inhibitor	Treatment of HIV-1 infection	June 20, 2003
<i>Somavert</i>	pegvisomant	Pfizer <a href="http://www.pfizer.com/download/usp_i_somavert.pdf">www.pfizer.com/download/usp_i_somavert.pdf</a>	Injection	Recombinant growth hormone-receptor antagonist	Acromegaly	March 25, 2003
<i>UroXatral</i>	alfuzosin HCl	Sanofi-Synthelabo <a href="http://www.uroxatral.com">www.uroxatral.com</a>	Tablet, oral	Alpha-1 blocker	Benign prostatic hypertrophy	June 12, 2003
<i>Velcade</i>	bortezomib	Millennium Pharmaceuticals <a href="http://www.velcade.com">www.velcade.com</a>	Injection	Reversible proteasome inhibitor	Multiple myeloma	May 15, 2003
<i>Xolair</i>	omalizumab	Genentech and Novartis <a href="http://www.xolair.com">www.xolair.com</a>	Injection	Anti-IgE monoclonal antibody	Allergic asthma	June 20, 2003
<i>Zavesca</i>	miglustat	Actelion Pharmaceuticals <a href="http://www.zavesca.com">www.zavesca.com</a>	Capsule, oral	Glucosylceramide synthetase inhibitor	Gaucher's disease in adults	July 31, 2003

## Small Doses

**CV Disease Prevention Guidelines for Women from the AHA ...** Evidence-based guidelines have just been published by the American Heart Association. The full reference and URL for the .pdf file are below.

Mosca L, Appel LJ, Benjamin EJ, Berra K, Chandra-Strobus N, Fabunmi RP, et al. Evidence-based guidelines for cardiovascular disease prevention in women. *Circulation* 2004;109:672-93.

<http://circ.ahajournals.org/cgi/reprint/01.CIR.0000114834.85476.81v1.pdf>

**JNC 7, the whopper, published ...** The 47-page complete version of "Seventh Report of the Joint National Committee on Prevention, Detection, Evaluation, and Treatment of High Blood Pressure" from the National High Blood Pressure Education Program appears in the December issue of *Hypertension*.

Chobanian AV, Bakris GL, Black HR, Cushman WC, Green LA, Izzo JL, et al. Seventh report of the joint national committee on prevention, detection, evalu-

...continued, on pg. 6

## The Facts behind “Fad” Diets

Julie Jespersen, Pharm. D. Candidate

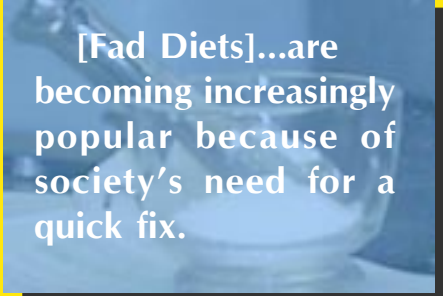
Overweight individuals and obesity are increasing rapidly in the United States and are becoming major health problems. The prevalence has increased over the years among both genders, all ages, all racial/ethnic groups, all educational levels, and all smoking levels.<sup>1</sup> Nearly two-thirds of adults are overweight and 30.5% of adults are obese.<sup>1</sup> This is also a problem in children. In 1999, 13% of children aged 6-11 years old and 14% of adolescents aged 12-19 years old were classified as overweight. These adolescents have a 70% chance of becoming overweight or obese adults.<sup>2</sup> Approximately 300,000 deaths each year are attributable to unhealthy dietary habits and physical inactivity.<sup>1</sup> Obesity has become a major health issue and a national topic of concern. Many people try to lose weight with a wide variety of diets.<sup>3</sup> Currently, there is much discussion about low carbohydrate, low calorie diets based largely on the popularity of the Atkins diet, the South Beach diet, and others.

Most of these are quick fix diets, also known as “fad diets”. Fad diets have been known to endorse irrational, and sometimes unsafe practices.<sup>3</sup> They are becoming increasingly popular because of society’s need for a quick fix.<sup>4</sup> Typically, “fad” diets overemphasize a particular food or type of food.<sup>5</sup> Some diets consider water loss equivalent to weight loss, but little fat is actually lost.<sup>6</sup> Some “fad” diets can put one’s health at risk. Some diets consist of three or four phases, but many do not make it to the last phase because it is too difficult to maintain and most of these diets are unrealistic for the long term. Often times, exercise is not encouraged as much as optimal but, lifestyle changes are usually not the primary focus of these diets. If one overeats regularly, they can continue to gain weight and eventually become obese once a diet is stopped.<sup>7</sup> Below is a summary of the more common “fad” diets being promoted in the marketplace today.

### TYPES OF DIETS:

**Atkins Diet:** This diet is based on the book: “Dr. Atkins’ New Diet Revolution” by Dr. Robert C. Atkins. The diet plan consists of very low carbohydrate intake and high protein intake. Its nutritional approach is to rebalance nutrition so that energy levels improve

as well as appearance and the patient gains a sense of well-being. It is a four phase process consisting of induction, ongoing weight loss, pre-maintenance, and lifetime maintenance. When first beginning this diet, one is limited to 20 g of carbohydrates per day. Over time, the carbohydrate intake increases. There is no limit on the amount of fat that can be consumed. The nutritional approach is set on four principles: one will lose weight, one will maintain the weight loss, one will achieve good health, and one will lay the permanent groundwork for disease prevention.<sup>8</sup> In two studies evaluating low carbohydrate versus low fat diets in obese patients, patients on the low carbohydrate diet experienced significantly greater weight loss than the low fat group over six months.<sup>9,10</sup> One study



[Fad Diets]...are becoming increasingly popular because of society’s need for a quick fix.

showed that there was no significant difference between the low carbohydrate and the low fat diet after one year.<sup>10</sup> There is still some criticism that the Atkins diet can lead to heart disease, high cholesterol and other health problems due to the high intake of saturated fats. The benefits of a low carbohydrate diet are still

uncertain and need to be studied further. High protein diets can increase the risk of heart disease, osteoporosis, and kidney problems.<sup>11</sup>

**South Beach Diet:** This diet is based upon the book, “The South Beach Diet” by Arthur Agatston M.D. It claims that it is not a low carbohydrate or low fat diet. It emphasizes eating the right carbohydrates and fats. It bases the carbohydrates on the glycemic index, which is a ranking of food on how quickly the body converts a carbohydrate to sugar. Carbohydrates that break down slowly have the lowest glycemic index. The South Beach Diet encourages the consumption of foods with a low glycemic index including oats, barley, bran, fruits, and vegetables, and excludes foods such as potatoes.<sup>12</sup> The author claims one will lose 8-13 pounds in the first two weeks.<sup>13</sup>

**Protein Power:** This diet believes that insulin is the main cause of obesity. The operative assumptions are that having high levels of insulin in the body can lead to hypertension, hyperlipidemia, high triglycerides, diabetes, and obesity. This diet focuses on restricting carbohydrate intake to <30 grams a day. Fruits and vegetables are also limited, but not high fat food choices.<sup>3</sup>

## What Evidence Supports the Use of Argatroban and Lepirudin to Maintain Dialysis Catheter Patency in HIT Patients?

Julie Jespersen, Pharm.D. Candidate

Heparin induced thrombocytopenia (HIT) is an immune-mediated disorder that may occur 5 or more days after continuous use of heparin and can be delayed up to 20 days. A drop in platelet count greater than 50% from baseline is considered indicative of HIT. Platelet counts commonly fall below 120,000 cells/mm<sup>3</sup> and can go as low as 20,000 cells/mm<sup>3</sup>.<sup>1</sup> Argatroban is a selective thrombin inhibitor that reversibly inhibits the catalytic site of thrombin resulting in competitive inhibition of the enzyme. Lepirudin (Refludan®) is a recombinant hirudin that reacts with thrombin to form a noncovalent complex. It directly inhibits all actions of thrombin and is used for anticoagulation therapy.<sup>2</sup> These drugs are FDA approved for HIT.<sup>2</sup>

Both argatroban and lepirudin have been effective to maintain dialysis catheter patency in patients who have developed HIT due to heparin therapy, although neither drug has FDA approval for this indication. The documentation of efficacy for argatroban is fair and it is poor with lepirudin. Argatroban is preferred over lepirudin due to its elimination via the liver. Lepirudin is renally eliminated and requires extreme caution in dialysis patients.<sup>3</sup> Lepirudin has been used in patients with end stage renal disease for prophylaxis of clotting of the dialyzer as well as to prevent systemic thrombosis. The half life in dialysis patients may be extended up to 316 hours (13 days). For patients on intermittent dialysis, a bolus dose of 0.1-0.15 mg/kg given at the start of dialysis has been shown to be effective.<sup>2,3</sup> Dialysis should be performed with high-flux dialyzers. Intermittent bolus doses of 0.007-0.04 mg/kg or continuous infusion of 0.006-0.025 mg/kg/hr are required to maintain an aPTT of 1.5-2. The aPTT should

be carefully monitored and dose adjusted due to the fact that lepirudin is renally eliminated and the variability among hemodialysis patients' response.<sup>3</sup> Before each dialysis session, the catheter should be aspirated to prevent prolonged anticoagulation and risk of bleeding.<sup>3</sup>

Argatroban has been used in patients with HIT undergoing hemodialysis as an alternative to heparin to prevent clotting.<sup>4</sup> IV argatroban has shown advantages over heparin in hemodialysis due to the minimal or no platelet activating effects, potentially less variable anticoagulant activity, preservation of antithrombin III levels, and minimal effects on serum lipids.<sup>2</sup> Aspirin has been required with argatroban in some hemodialysis patients with HIT due to the plasma levels of heparin-induced platelet aggregation factor.<sup>2</sup> No dose adjustment is needed in hemodialysis patients. The initial dose is 10mg bolus before dialysis or 15-25 mg/hr. The dose should maintain an aPTT level of 1.5-2x the control or a plasma argatroban level of 2 mcg/mL.<sup>2</sup> The aPTT should be checked 2 hours after the initiation of argatroban to determine if it is within the desired therapeutic range.<sup>5</sup>

In summary, both argatroban and lepirudin can be used to maintain dialysis catheter patency in patients who have developed HIT, although few studies have been performed. Argatroban may be a better choice due to its liver metabolism.

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1. DiPiro JT, Talbert RL, Yee GC, Matzke GR, Wells Bg, Posey LM, editors. Pharmacotherapy: a pathophysiologic approach. 5th edition. New York: McGraw Hill; 2002.
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### Fad Diets—continued from pg. 4

**Sugar Busters:** This diet's premise is that sugar is toxic. The belief is that calories are not as important as the type of food choices and how they are consumed. It focuses on foods with a low-glycemic index. Lean meats and fat should be eaten in moderation.<sup>3</sup>

**Zone:** The Zone diet is from a book, "The Zone," by Barry Sears, Ph.D. This is a 40% carbohydrate, 30% protein, and 30% fat diet. It suggests you should eat grains and starches sparingly. The protein to carbohydrate ratio is required with each meal to reduce the insulin to glucagon ratio, which affects eicosanoid (a hormone like sub-

stance derived from polyunsaturated fatty acids) metabolism which leads to a decrease in chronic disease risk, increased immunity, maximum physical and mental performance, and permanent weight loss.<sup>14</sup>

**High-Fiber Fitness:** This diet focuses on increased intake of vegetables, fruits, and high fiber foods. It moderately restricts fat.<sup>3</sup>

**Pritikin Program for Diet and Exercise:** This diet is low in fat, cholesterol, protein and highly refined carbohydrates. It is high in complex carbohydrates and fiber.<sup>3</sup>

...continued—pg 6

ation, and treatment of high blood pressure. *Hypertension* 2003 Dec;42:1206-1252.

<http://hyper.ahajournals.org/cgi/reprint/42/6/1206.pdf>

**Just say no ...** as a message for MD's concerning gifts, etc from pharmaceutical representatives. Dr. Robert Goodman, a Columbia University physician has mounted his own grass roots campaign against one of the pharmaceutical industry's promotional tactics. Of course he has a web site. <http://www.nofreelunch.org> It's entertaining reading at the least.

Mangan KS. Strong medicine for doctors. *Chronicle of Higher Education* 2004 Jan 9;50(18):A28-A29

**Ipecac syrup no longer recommended ...** by the American Academy of Pediatrics. The official policy statement is accessible via ... <http://pediatrics.aappublications.org/cgi/reprint/112/5/1182.pdf> American Academy of Pediatrics: Committee on Injury, Violence, and Poison Pre-

vention 2002-2003. Policy Statement: Poison treatment in the home. *Pediatrics* 2003 Nov;112:1182-5.

In a related article, the FDA received a recommendation from advisers that ipecac syrup should not be allowed to be sold OTC. It is expected to make a decision in early 2004.

<http://www.cnn.com/2003/HEALTH/parenting/11/03/no.ipecac.ap/index.html>

**Medical abbreviations forbidden ...** by JCAHO as of 01/04. Health care organizations who must care about the JCAHO must include this "minimum list" of nine dangerous abbreviations/symbols in their "do not use" list. Included are U, IU, Q.D., Q.O.D., trailing zeros, lack of leading zeros, MS, MSO<sub>4</sub>, and MgSO<sub>4</sub>. Additional abbreviations are also suggested (with the rationale). [http://www.jcaho.org/accredited+organizations/patient+safety/04+npsg/04\\_faqs.htm](http://www.jcaho.org/accredited+organizations/patient+safety/04+npsg/04_faqs.htm)

#### Fad Diets—continued from pg. 5

**Ornish:** This diet consists of a vegetarian diet that is low in fat and high in complex carbohydrates and fiber. This diet recommends less than 10% of calories come from fat, because fat is the main reason for weight gain. Ornish believes that diet, regular exercise, and meditation reduce the risk of coronary artery disease.<sup>3</sup>

**Hollywood diet:** This diet claims that drinking a juice full of vitamins and minerals will help cleanse the body and promote weight loss. It is only meant for short term use (about 2 days).<sup>15</sup> However, Vitamins and minerals in excess can cause a host of problems.

**Grapefruit diet:** This diet assumes that grapefruit contains fat-burning enzymes. On this diet, one is restricted to around 800 calories per day. Each meal consists of eating a half of a grapefruit before anything else. Consumption of large quantities of caffeinated drinks are also recommended.<sup>6</sup> This diet has the added hazard of numerous drug interactions with grapefruit juice, including some calcium channel blockers, warfarin, theophylline, and some SSRI's.<sup>16</sup>

**Cabbage Soup Diet:** This approach consists of only eating cabbage soup for a week. The soup recipe does not provide the body with all of the nutrients it needs.<sup>15</sup>

**3 Day Diet:** This diet restricts calories to 1,000 per day for a three day period. Foods allowed are also restricted to mainly fruits, vegetables, and lean meat. With this diet, the body tends to lose water rather than fat.<sup>6</sup>

**Scarsdale Diet:** The book, "The Scarsdale Diet," by Dr. Herman Tarnower was first published in the 1970s,

and is still being sold today. This diet consists of 43% protein, 22.5% fat, and 34.5% carbohydrates. The author claimed that even at this level of carbohydrates, the body would still go through ketosis, weight loss would be quick, and hunger not a problem. One is supposed to follow this diet for two weeks at a time, consuming only 1,000 calories per day.<sup>17</sup>

#### PROBLEMS WITH FAD DIETS

Although many of the low carbohydrate, high fat diets will help one lose weight fast, they are likely unhealthy. Most of the weight that is lost initially during the first few weeks is water weight, due to the diets causing a mild diuresis.<sup>18</sup> By avoiding foods and food groups such as dietary fiber, carbohydrates, vitamins, and minerals, these diets are not providing the nutrients the body needs on a daily basis. If one maintains a very low carbohydrate diet for an extended period of time, it may induce ketosis; this is a process when the body starts burning fat due to the lack of carbohydrates needed for energy. Burning fat without carbohydrates creates byproducts called ketones that build up in the bloodstream. The kidneys remove the ketones and they are eliminated in the urine.<sup>19</sup> Ketones suppress appetite but can also lead to muscle breakdown, dehydration, constipation, nausea, vomiting, headaches, lightheadness, irritability, and bad breath.<sup>15</sup> Long term side effects of ketosis may include heart disease, bone loss, and kidney damage.<sup>20</sup> Eating foods high in saturated fats and cholesterol can also increase cholesterol

**Fad Diets**—continued from pg. 6

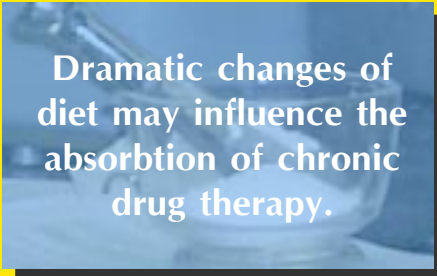
levels and increase the risk of coronary heart disease. Protein is difficult to break down and can cause the basal metabolic rate to increase. This causes more calories to be burned during digestion and metabolism than other high fat or high carbohydrate diets.<sup>18</sup> High protein diets have the potential to increase the risk of osteoporosis. They may also cause long term kidney damage. People with a family history of renal problems should avoid high protein diets. Currently, no major health care organization supports any of these fad diets.<sup>18</sup> Drug therapy may also be affected. Dramatic changes of diet may influence the absorption of chronic drug therapy.<sup>21</sup> Large amounts of ingredients such as vitamins and minerals can interfere or interact with some medications, or pharmacologic agents such as caffeine can alter therapy or diseases.<sup>22</sup> Diets that induce diuresis could lead to dehydration in some patients and with certain drugs could lead to disorders of thermoregulation. In addition, even moderate amounts of ingredients (see grapefruit diet) can have a profound impact on some drug action.<sup>16</sup>

**WHAT TO LOOK OUT FOR IN A DIET PLAN**

- Avoid diets that eliminate a food group all together
- Avoid diets that do not recommend exercise along with healthy eating
- Be suspicious of diets that appear to rely on chemical reactions.<sup>6</sup>
- Think twice about scientific claims made without scientific proof.<sup>6</sup>
- Diets that sound too good to be true<sup>20</sup>

**THE BEST DIET PLAN!**

Every healthy diet should revolve around the USDA's food pyramid.<sup>18</sup> The best weight loss diet is a balanced diet that is high in healthy carbohydrates, low in fat, and moderate in protein. It should be rich in whole grains, fruits, and vegetables.<sup>23</sup> It is best to eat a variety of foods. This can help provide you with vitamins, minerals, fiber, and phytochemicals (chemicals produced by plants that may help prevent cardiovascular disease, cancer, and diabetes).<sup>20,24</sup> For weight loss, it is best that no more than 30% of the total daily calories come from fat.<sup>5</sup> Also limit salt intake, since salt causes water retention. To lose weight and keep it off, one needs to change their lifestyle. Lifestyle changes involve not only the types of food choices, but also involves the approach to eating and activity, which means changing how one thinks and acts.<sup>25</sup> Exercise should become a part of everyday activities. It



Dramatic changes of diet may influence the absorption of chronic drug therapy.

is recommended to exercise at least 30 minutes daily 5 times per week. Start slow and gradually increase over time as tolerance increases. If exercise has been missing from the daily routine for a long period, check with a physician before undertaking a rigorous program. Patients should set small goals and reward themselves when they achieve these goals. They should develop a plan that will gradually change their habits and attitude about losing weight. They should surround themselves with good examples and try to avoid food triggers when at all possible. Patients should make diet and exercise changes to please themselves, not others.<sup>25</sup>

In summary, the best diet plan is a balanced, healthy diet along with regular exercise. This should not only help one lose weight effectively, but also keep the weight off.

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