



HEALTH TIPS

Healthy dieting key to weight loss

By Michelle Morat
A.P. BEUTEL HEALTH CENTER

In our sedentary, food-filled environment, obesity is a common health problem and a major risk factor for diabetes, cancer, high blood pressure, strokes, heart disease and arthritis. Being overweight increases body mass and blood volume, and makes the heart work harder. We all need to find the balance of energy input and output for our own individual metabolism.

Eat right - Weight management need not be difficult and frustrating. Although an abundance of methods exists for losing weight, many do not provide lasting results and may actually cause additional problems. Medical complications can actually result from poor eating habits. Also, before starting any weight management program, a person should ask these seven questions: (1) Does it include foods from all the groups in the Food Guide Pyramid? (2) Is it based on a secret no one has discovered? (3) Does it promote rapid weight loss? (4) Are unlimited amounts of food promised? (5) Could you live on the diet for the rest of your life? (6) Is the author a credible one? and, (7) Has the author properly supported his/her success? If the answers to questions 1, 5, 6 and 7 are yes, a person is probably on the right track.

The word "diet" means the types of food consumed, not a restriction in calories. However, in society today, the diet has developed the negative connotation of self-deprivation. While we recommend an eating plan based on the Food Guide Pyramid, many times people try different diets. Before making major changes in

eating habits, a person should check with a registered dietitian and physician.

The dietary guidelines are recommendations to help improve the food choices that people make. These suggestions can help most people make better choices for good health. They include (1) eat a variety of foods, (2) maintain a healthy weight, (3) choose a diet low in fat, saturated fat and cholesterol, (4) choose a diet with plenty of vegetables, fruits and grain products, (5) use sugars only in moderation, (6) use salt and sodium only in moderation, and (7) if you drink alcoholic beverages, do so in moderation. The Food Guide Pyramid helps individuals follow the dietary guidelines. It is not a rigid prescription like most diets, but a general guide that lets a person choose a healthy diet that is right for that person. The pyramid calls for eating a variety of foods to get the nutrients a person needs, and at the same time, the right amount of calories to maintain healthy weight.

Exercise - Keep in mind that the desirable percent body fat for general health for men is 15 percent and for women is 22 percent. If a person is overweight (by height-weight standards), due to a large lean body mass, but not overfat, the person should relax. If a person is overweight and overfat, the person should use exercise or combine a mild to moderate calorie restriction with an aerobic exercise program. This will ensure that any weight loss is from fat. If a person is overfat, but not overweight, due to a small lean body mass, the person should shape up with aerobic exercise.

Exercise has many mental and physical benefits. Exercise benefits a person mentally because it helps a person to relax, cope with stress, gives extra energy to work and study, and improves self-esteem because it makes a person look better. Exercise helps a person physically because it tones muscles, burns fat, controls appetite, and weight. Exercise can help a person live longer because it helps the heart and lungs work more efficiently so it decreases the chances of having a heart attack. It can also help control high blood pressure and diabetes.

Correction

In the Oct. 13 issue of the Battalion, a Student Senate bill was incorrectly identified. According to the bill, senior and junior workers will register on the last day of honors registration, sophomore workers will register on the last day of senior registration, and freshmen will register on the last day of junior registration.

Texas A&M research team discovers method of synthetically cloning drugs

New genetic engineering process to increase availability, reduce costs

By Katherine Arnold
THE BATTALION

Texas A&M researchers have discovered a new method of synthetically producing drugs that could revolutionize drug availability.

Dr. Ian Scott, director of the Center for Biological Nuclear Magnetic Resonance, is leading a team of researchers that discovered a way to use genetic engineering to produce drugs from organic compounds in a single test tube method.

"We discovered we don't need a living system to synthetically produce drugs," Scott said.

Scientists started 25 years ago in an attempt to find out how enzymes were producing vitamin B-12. Scott said they had no idea they would find this new process.

Dr. Neal Stolowich, senior scientist in the Center for Biological Nuclear Magnetic Resonance, said the project changed direction about five years ago when the team realized molecular biology could be used.

"It is usually a 50 or 60 step process to synthetically produce a compound," Stolowich said. "Using enzymes, we can reduce the process to about 20 steps."

The process involves knowing which genes produce the compound. Much of this research had already been done for vitamin B-12, so Scott and his team of scientists were able to use this information in their study.

After cloning and isolating the necessary genes, the genes are implanted into yeast or bacteria. The bacteria then begins to produce vitamin B-12.

The scientists were able to complete all but three steps of the process for vitamin B-12. The remaining steps can be completed through simple chemical reactions, Scott said.

The next step is to test the process on other substances that come from plants, Scott said. The researchers are currently working on synthesizing taxol, which is a drug that works to cure ovarian cancer.

Taxol is a product of a yew tree, mainly found in the Pacific Northwest Farms and nurseries raise the trees for the production of taxol, Scott said.

"If we can successfully produce taxol through molecular biology, then we are doing in a few days what would take years to do organically," Scott said.

The process has many benefits, Scott said. Many drugs are produced from rare species of plants. If these drugs can be produced synthetically, then the process could save endangered species. The process also has no byproducts, he said.

A larger amount of the product also can be produced, Stolowich said. Greater supply could be made quicker, the cost would be cheaper. But for the process is still expensive.

Researchers are looking to apply the process to other drugs as well.

"No one has done this yet," Scott said. "Once the process is set, I think it will work for anything."

Dr. David Thompson, professor of pharmacology and toxicology in the College of Medicine, said producing drugs by this method could be very beneficial.

"This looks like very feasible and promising research," Thompson said. "A lot of research areas could benefit from it."

A&M, Dallas join together on international waste management training center project

Project to create industrial park, research facilities to advance recycling industry

By Katherine Arnold
THE BATTALION

Texas A&M and the city of Dallas are working together on a \$9.6 million project that will create an international waste management technology and training center.

The project will create an industrial park and research facilities to expand on the recycling industry, Dr. Kemble Bennett, director of the Texas Engineering Extension Service (TEEX), said.

"The plan has all the ingredients for success," Bennett said.

"Coupling Dallas' facilities with university research should be successful and attract a lot of international attention," Bennett said.

The center will be located next to the city-owned McCommas Bluff Landfill in Dallas.

The landfill, which is the largest in the Southwest, currently receives recognition for its efforts in recycling.

"Dallas has been trying to find more ways to deal with waste management, and TEEX has been training in that area for years," Bennett said.

"This works out great for both parties," Bennett said.

Ted Benavides, assistant city manager of Dallas, said the city was looking for ways to make the landfill more of an asset.

"The new center will spur economic growth," Benavides said.

"We were looking for ways to create more jobs and businesses, and this project will hire local people and hopefully attract small businesses," Benavides said.

The University will be providing training classes when the center opens in the

fall of 1997.

Courses will not be for academic credit. Instead, most courses will be certification courses in recycling and Environmental Protection Agency requirements.

Goals for the research facility include coming up with ways to improve recycling efforts and landfill management.

"We are going to see what we can make of this facility," Benavides said.

"Research will look into energy reduction, plastics, and marketing of byproducts of recyclable material," Benavides said.

"A lot of good things will come out of this," Benavides said.

The facility is not yet fully funded. Most funding will be from federal grants.

The project is expected to span areas of interest, Bennett said.

"The spinoffs from the center will be a wealth of opportunity for many," Bennett said.

"Businesses will be involved, as well as science, engineering, and agriculture," Bennett said.

Family's genetic mutation protects from clogged arteries

LOS ANGELES (AP) — Cristoforo Pomaroli and Rosa Giovannelli had a son in 1780 in their small town in Italy, never knowing they bequeathed a genetic legacy that offers hope for reversing heart disease two centuries later.

The boy's descendants in Limone inherited a genetic defect that protects them from the scourge of Western living — fatty deposits that clog the arteries.

The 38 lucky carriers have a simple mutation in a protein of so-called good cholesterol that lets them eat red meat, sausage and butter without artery-clog-

ging deposits.

They range in age from the teens to nearly 90. And they have never worried about strokes or heart attacks since longevity runs in the family.

"They are almost all smokers. They eat like hell, the worst diet," said the University of Milan's Dr. Cesare Sirtori, who screened residents of Limone for the miracle mutation.

Ever since Sirtori discovered the mutation, called Apolipoprotein A-1 Milano for the university where he is a pharmacology professor, doctors have wondered about harnessing its power to

eliminate coronary artery disease.

"Eventually it is not inconceivable that the gene could be transferred to the liver or other organs of very high-risk people who could then end up manufacturing it on their own," said Dr. Prediman K. Shah, director of the cardiac care unit at Cedars-Sinai Medical Center in Los Angeles.

Shah leads a U.S.-Swedish team examining the more immediate potential to reduce the deadly reclogging that occurs after a blocked vessel has been cleared with balloon angioplasty surgery.

In the October issue of the American Heart Association journal *Circulation*, Shah reports injections of a genetically engineered version of the protein dramatically reduced the reclogging of rabbits' coronary arteries.

Before and after the surgery, eight rabbits got injections of Apo Milano attached to a fat molecule that targets the proper site. Eight others got injections of only the fat molecule. Four rabbits got no treatment.

"The striking finding was in the rabbits that received the recombinant version of the Apo Milano, the amount of

plaque that built up was 70 percent less than the (untreated) control group," Shah said.

Sirtori said he will publish similar results in December showing plaque at all in rabbits injected with Apo Milano. Shah said Friday he will test monkeys, pigs and mice before considering human trials, a point that could take several years to reach.

Shah learned about the Limone mutation two years ago while searching for sources of synthetic high-density lipoprotein, HDL, which is cholesterol that might reduce reclogging.

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Undergraduate Student Requirements:

- You must be a degree seeking student and have a total of **95 credit hours** reflected on the Texas A&M University Student Information Management System. (A passed course, which is repeated and passed, cannot count as additional credit hours.)
- 30 credit hours** must have been completed in residence at Texas A&M University. If you did not successfully complete one semester at Texas A&M University prior to January 1, 1994, you will need to complete a minimum of 60 credit hours in residence. However, should your degree be conferred with less than 60 Texas A&M University resident credits, this requirement will be waived after your degree is posted on the Student Information Management System.
- You must have a **2.0 cumulative GPR** at Texas A&M University.
- You must be in good standing with the University, including no registration or transcript blocks for past due fees, loans, parking tickets, returned checks, etc.

Graduate Student Requirements:

If you are a **December 1994** degree candidate and you do not have an Aggie ring from a prior degree year, you may place an order for a '94 ring after you meet the following requirements:

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- You are in good standing with the University, including no registration or transcript blocks for past due fees, loans, parking tickets, returned checks, etc.

If you have complete all of your degree requirements prior to **October 14, 1994**, you may request a "Letter of Completion" from the Office of Graduate Studies and present it to the Ring Office in lieu of your degree being posted.

Procedure To Order A Ring:

- If you meet the above requirements, you must visit the Ring Office **no later than Wednesday, October 19, 1994**, to complete the application for eligibility verification (requires several days to process).
- If your application is approved and you wish to receive your ring on approximately **December 13, 1994**, you must return and pay in full by cash, check, money order, Visa or Mastercard **no later than October 21, 1994**.

Men's 10KY - \$313.00	14KY - \$427.00
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THE BATTALION

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