

'Soft' aerobics provide safer way to exercise

By MAUREN SEABERG
Collegian Science Writer

The high number of injuries caused by the strenuous workout of aerobics has led researchers calling for a new "softer" technique.

Sharon Warwick, a University aerobics instructor said soft or low impact aerobics is gaining increasing popularity among aerobic enthusiasts as a safer alternative to exercise to help reduce the risk of injury.

Aerobics is a conditioning plan that was developed by Dr. Kenneth Cooper for the U.S. Air Force. It is also known as stamina training, and has been called the most vital form of cardiovascular and respiratory systems.

The exercise must be performed at least three times a week for 20 minutes each workout to be effective and produce a train-

ing effect, Warwick said, adding that the heart rates of participants should reach approximately 140 beats per minute for the best results.

Time magazine reported in June that an estimated 24 million Americans, 90% of them women, are dedicated to regular aerobic workouts in classes. Most expect only positive results. However, traditional high-impact aerobics can be dangerous to both students and instructors. Time reported that a recent survey of 1200 students showed that 2% had suffered injuries, and that among 58 teachers, a startling 76 percent had been injured.

Most aerobic injuries are muscle strains and aches — predominantly in the shins and feet — which will heal with rest, but increasing numbers of back, shin, knee, calf, foot and ankle injuries have drawn attention to safety of studio floors, proper aerobic shoes,

positions during exercise and competency of instructors. Even the nature of the exercise itself under scrutiny, since an aerobics exerciser lands with a force equal to three times her or his weight.

Concern about the risk of exercise-related injuries has caused the American College of Obstetricians and Gynecologists to call for less intense workouts. It also issued guidelines for the aerobics exerciser:

- Heart rate should not exceed 75% of the recommended maximum.
- Classes should be no more frequent than every other day.
- The aerobics portion should be limited to 30 minutes.
- No more than four hops should be performed in sequence on the same foot.

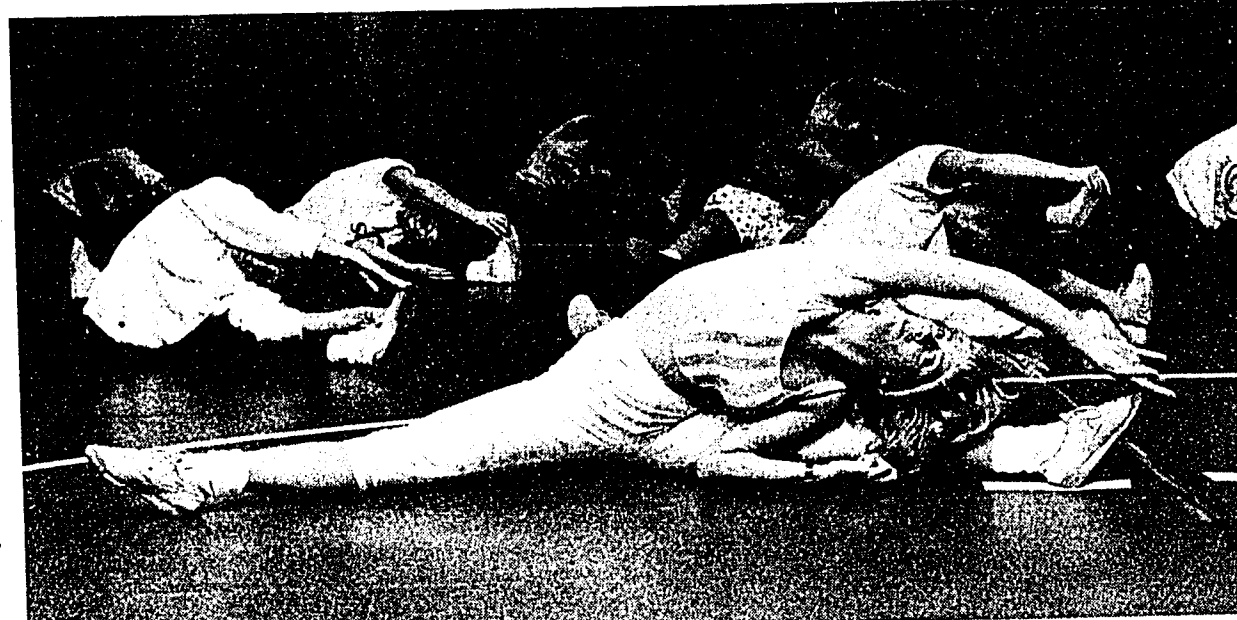
The new aerobics technique, also called non-impact, or controlled aerobics, requires that one foot be kept on the floor at all times,

Warwick said, adding that increased upper body movement, combined with other techniques can bring heart rates up to target rates just as in conventional aerobics.

Instructors are also incorporating other disciplines such as yoga, Tai Chi, ballet and jazz to create routines so safe that they can even be done barefoot. Other instructors are softening the strain of aerobic workouts by exercising in a swimming pool — a method called "hydroaerobics."

Debbie Southard of State College Nautilus and Aerobics Plus said her club will be featuring a low impact class this month. "We hope that people who work out more than three to four times a week will be showing up for the low-impact class," Southard said.

University students have the opportunity to not only learn both soft and hard aerobics, but also more about the disciplines of aerobic exercise in University aerobics courses. The



Penny Bird (senior-administration of Justice) stretches during her soft aerobics class, which focuses on more upper body movement to decrease stress on the feet, legs and back.

Vitamin O.D. as great a threat as deficiency

By CHRISTINE KILGORE
Collegian Science Writer

One who believes that "if a little bit is good, then a lot is better" may be following a dangerous misconception when it comes to vitamins, according to a University nutrition professor.

John E. Smith said vitamin overdose, which can cause effects ranging from mild skin irritations to more serious disorders requiring hospitalization, is something many students are not aware of. Although vitamin overdose is not as common as vitamin deficiency, it can cause medical problems when students take an excessive amount of vitamin supplement pills, he added.

Vitamins containing over 100 percent of the recommended daily allowances — nutrition requirements set by the Food and Nutrition Board of the National Research Council — can also lead to overdose, he said.

"Overdose is very unlikely when you eat standard recommended foods — it is almost impossible to overdose by eating a regular diet," he said. "But we all want capabilities beyond what the human body can do. We all want to be superman or superwoman — so many of us take vitamin supplements."

Fat-soluble vitamins — those that are stored in excessive amounts in

the liver, muscle and fat tissue — can pose the greatest risk because they tend to accumulate in the body, Smith said.

Large doses of the fat-soluble vitamin A — found in liver, dairy products, broccoli, spinach and yellow vegetables — can cause overdose symptoms such as scaly orange skin, severe migraine headaches, hair loss, and calcium loss from the bones.

"A vitamin A overdose will mobilize calcium out of the bones and cause hairline fractures in the bone," Smith said, adding that vitamin A is often used by dermatologists to treat acne. "I know of one woman who killed bone cells and still can't walk."

Occasionally, vitamin A overdose can cause pressure on the brain that leads to symptoms resembling a brain tumor, Smith said. "There have been instances where people have actually had surgery before physicians realized it was a vitamin overdose."

Lila vitamin D overdose, an overdose of vitamin D — another fat-soluble vitamin — can be rare but almost continuous, he said. "An excessive amount of vitamin D can cause calcium to be deposited in the kidney. This leads to renal trouble and then possible heart trouble."

Water-soluble vitamins, which pass through the body instead of accumulating in it, are less likely to be toxic.

"Vitamins C and E, water-soluble vitamins, are most often taken in overdose. Fortunately, they are the least toxic," he said.

An overdose of vitamin C, often taken by people who falsely believe it can prevent or eliminate the common cold, can lead to kidney stones in some people, he said. An overdose of iron then can cause liver damage.

"There is no evidence that vitamin C prevents colds," Smith said. "Some studies suggest that vitamin C can alleviate symptoms and lessen the severity of colds, however."

Vitamin B-6, another water-soluble vitamin found in liver, leafy green vegetables, and cereals, can cause the loss of sensory-nervous control if taken in excessive amounts, he said. "Some women take (vitamin B-6) to prevent pre-menstrual pain," Smith said. "But they're often given 1,000 times the recommended value . . . and like most other vitamins, people think that if it doesn't work, they should take double."

The effects of vitamins may often have a psychological to patients whose physicians have prescribed vitamins, he said.

"Much of the general population will go to a physician and say 'I feel tired — I don't know what's wrong,' he said. "But they're often given 1,000 times the recommended value of the vitamins they're taking. The effects of vitamins in general resembles what physicians used to do with sugar pills."

"People think if a little bit is good then a lot more is better," he said. "A patient can come back to the doctor saying 'I feel better,' regardless of only a limited impression on me and it soon wore off."

On the contrary, Steve was usually up by 6:30 a.m., giving himself enough time to go for a quick jog, take a shower, make a good breakfast, and get to his 8:00 class. And speaking of breakfast, their eating habits were as different as night and day.

It would make me queasy to watch Bob in action. Bob's breakfast/lunch consisted of a Pepsi and some Tastykakes from the Uni-Mart on the way to class. What a way to shock your system first thing in the morning!

He justified this by claiming that he needed all the sugar and caffeine to stay awake in class.

I usually met up with him after that class for lunch, and while I enjoyed the fresh veggies at the salad bar, Bob enjoyed the grease in his cheeseburger and french fries and got even more hyper from the sugar in his milkshake. I realize that men usually eat more than women, but this was ridiculous.

Bob rarely cooked anything much for dinner, he was too lazy. Free delivery is the best thing that ever happened in his life. If he did happen to be too broke to order out, he'd sometimes venture so far as to throw some of those beef bags of turkey or beef in gravy on the stove, or maybe even open a can of Spaghetti-O's.

Living away from the dorms myself, I understand the time it takes to cook a decent meal, but I also realize that it certainly isn't impossible. As long as you

Student health habits follow society's general trends

By ALEXANDER SOAST
Collegian Science Writer

Student health habits are reflecting trends within the rest of society by paying more attention to diet and exercise, said the University's assistant director of the Office of Health Promotion and Education.

Kevin Charles said "The awareness is greater (of the need) for exercise and eating correctly," he said. "Whether this manifests itself in better health behavior remains to be seen."

"Students need to get exercise of an aerobic nature at least three times a week," he said. Exercises such as swimming, bicycling, running and even brisk walking are good, he said, adding that the activity needs to be steady and last for 20 to 25 minutes to strengthen the cardiovascular system.

"People need to eat foods from the four basic food groups," Charles said. The four food groups are milk and dairy products, fruits and vegetables, meat, and breads and cereals. "The average college student (eats) a lot of fats and fast food," he added.

Robin Bagby, an in-home coordinator for the Penn State Nutrition Center, said "The hardest thing with students is dollars — so they choose

fast food." She added that students also often do not have enough time to exercise and eat correctly.

In general, 15 percent of the population skips breakfast and eight percent skips lunch, said Jane Peacock, a graduate assistant at the nutrition center.

The average breakfast skipper is usually 18 to 24 years old, including college students. "Students may be inclined to skip breakfast or lunch," and sometimes both, she added. Students often skip breakfast on weekdays and lunch on weekends, she said, adding that the main reasons students skip meals are a lack of time and as a means to control calories.

Elaine Young, a University assistant professor of nursing, said although students may not eat properly, the number of students who smoke has decreased.

"Student smoking is declining just as is adult smoking — just not as rapidly," she said, adding that even though she did not have statistics on the number of college students who smoke, "Statistics show that people who aspire to higher education seem to smoke less."

Along with the use of smokeless tobacco, the use of alcohol has risen among college students in recent years, Charles said. Alcohol use is measured according to the number of students using it once a month or more.

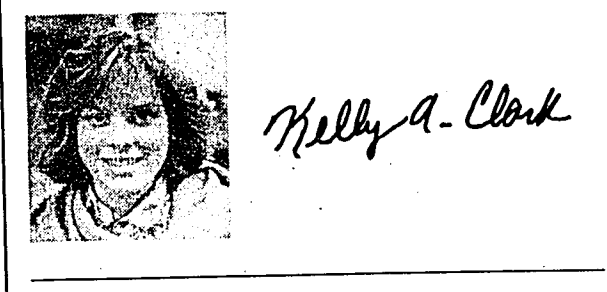
"By far, the drug of choice is alcohol," he said. "Alcohol is usually not considered a drug. People don't think what that means."

Other drug use such as cocaine has also been increasing while marijuana use is decreasing, he added. A glance at the newsstand will confirm this, especially in the media, Charles said.

Staying healthy:

It's more than just a three-hour workout

Last year, I met Bob and his roommate Steve while working out at a Nautilus club. We usually worked out the same time every day, and over the course of the year, we got to be pretty good friends.



Bob was the most gorgeous thing I'd ever seen and he had a great body! Steve, on the other hand, was fairly good looking but didn't make your head turn.

After a while, I began to notice little habits of Bob's that made me wonder. First I noticed that except for working out at least two hours every day, he was incredibly lazy. He never got up earlier than 11:45, which was just in time for him to make it to his 12:05 class.

When you're over 65, you usually need vitamins because your caloric intake can be cut in half as your body and muscle mass becomes smaller," Smith said. "But for younger people, I neither encourage or discourage taking supplements. If they're not taken in overdose, they may be helpful."

Mary Adams (junior-nutritional science) said she took vitamin supplements until she read about the dangers of overdose. "I took vitamins for a long time, partly because my family always had," she said. "Then I read articles on megadoses and decided not to."

"I just gave a speech for a nutrition class on vitamin overdose — people were surprised," Adams said.

Another one of the peevish I had was his social life. Given, Bob did his share of bar-hopping, but he never strayed from the group of two or three guys that he parted with. He never really made an effort to make friends with people in his classes, or anywhere else for that matter.

Being able to interact well with others in a variety of situations is an important quality that everyone needs to thrive in our society. Especially during this stage in our lives, a certain amount of socializing, "partying," or whatever you want to call it, is absolutely imperative to your well-being. Once again though, too much or too little can be detrimental.

When I asked Steve about Bob's other interests I found that he had none. He was addicted to exercise. I guess I assumed that since Steve was so involved in his academic career and other organizations, that Bob was, too, especially since such activities look good on a resume. I began to wonder, with his limited interests, if Bob even had a real personality or was just a bulge of muscles.

After a while I began to realize that I was not the only physique. Bob was not happy with himself. He would often go through serious mood swings, but he denied that anything was wrong. I tried to tell him that being able to express your feelings freely is sometimes easier for some than others, but I know that it's definitely not healthy to keep your emotions inside all the time.

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business district. Riding on residential sidewalks will still be allowed, provided that the rider yields the right of way to pedestrians, she said.

Council member R. Thomas Berner said the amendment was not intended to change the existing ordinance, which already forbade bicycle-riding on downtown sidewalks, but to clarify it in the past to include roller skates, skateboards, and other vehicles, the ban on those vehicles will now be more clearly specified, Berner added.

Geoffrey Brugler, chairman of the Downtown Business Association, said the DBA wrote a letter of complaint last month to the council after receiving a number of complaints from customers, including several who had been hit by bike-riders on the sidewalks. He added that since many stores downtown open directly onto the sidewalk, pedestrians emerging from the stores have no warning if a vehicle is approaching.

"I have a strong feeling that people avoided coming downtown for that reason," Brugler said. The problem has been ongoing for several years, but complaints increased dramatically last summer, he said.

He added that bikes being walked on the sidewalks are not considered a problem, and that the residential areas might actually be good places to ride skateboards. The DBA is mostly concerned with removing this

Video-testing

Taped evidence may help convict drunken drivers

By JAMES A. STEWART
Collegian Staff Writer

A proposed new video-testing center for people suspected of driving under the influence will save Centre County police officers time and provide video evidence to aid the conviction of drunken drivers, said State College Police Chief Elwood G. Williams.

State College Municipal Council gave Williams and his staff permission Monday night to pursue a federal grant covering purchases of video equipment and operation costs for the first six months of the proposed program.

If the program goes into effect, State College Bureau of Police Services will share equipment with county police departments, Williams said, adding that police departments in Patton and Ferguson townships were "supportive of the concept."

Pennsylvania Department of Transportation spokeswoman Lisa McMullen said Centre County became a possible site for a "central processing center," with videotaping facilities for booking DUI arrests, after the department was contacted by Centre County District Attorney Ray Grisar in February.

Though no money was available then, Grisar's request was reconsidered when funds became available from the federal government in September, McMullen said.

Grisar, who is working with Williams on the proposal, said all Centre County municipalities will be encouraged to take advantage of the service.

After the first six months, a fee, tentatively set at \$100, will be charged to each guilty defendant, Grisar said.

"One of the biggest advantages is that it will

cut down processing time for the officer on the street," Williams said.

"It'll also give us the ability to play the tape back in court and show them the condition we saw the (defendant) in," Williams added. "A picture's worth a thousand words."

McMullen said the proposal will be rated by PennDOT on a variety of factors, including population, high fatality rates and high DUI arrest rates.

Pennsylvania has 21 DUI taping centers, McMullen said.

The equipment and initial operating costs are estimated at between \$10,000 and \$80,000, Williams said, "depending on how sophisticated we make it." He added that the equipment has not yet been chosen.

The request must be presented to PennDOT by Nov. 15, Williams said.

Sidewalk bicycle riders to face fine

By MIKE LENIO
Collegian Staff Writer

Signs will soon be posted on College Avenue and Allen Street warning bicyclist riders to stay off the sidewalks or face a fine.

State College Municipal Council on Monday passed an amendment to an existing ordinance which prohibits amendment will allow the borough to install signs between Hazel and Burrows streets on College Avenue and on Allen Street. The amendment also bans roller skates and skateboards on the downtown sidewalks.

Council member Ruth Levin emphasized that the ordinance will still affect only sidewalks in the downtown

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