Singers celebrating the season with song

The Academy Singers from the Academy of Popular Vocal Arts will celebrate the holiday season in song and dance at their third annual Christ-mas Concert at 7:30 p.m. Monday. Dec. 15 in Oakland University's Varner Hall.

Church hosts 'Snowfair'

The Creative Council will host its second "Snowlair," a sale of arts and crafts, Dec. 12-14, at Nativity Episca. Dec. 12-14, a

available at the own will be appearing in the concert are Lynn Pruss of Birmingham; Michelle Paris of Farmington Hills; Eric Everson and Tod Farmer of Livonia; and Kathleen Ganaden, Jonathan Irvine, Sylvia Lacelle and Jennifer Sausser of Troy.

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The academy is a continuous high school workshop, 'designed to present unique opportunities for young singers to participate in professional and learning experiences that will encourage and instruct them in becoming professional singers, entertainers, educators or members of the music industry. This year's traveling group features 24 singers and dancers who represent 10 different communities.

The students have recorded three albums and have performed numerous concerts throughout the United States. They most recently appeared in performance at the 1980 Eastern Division, ACDA Convention in New York City, where they received an enthusiastic reception.

Overweight? Is it muscle or fat?

Question: Can I rely strictly on the height/weight tables to determine if I'm overfat? What are the most accurate methods for someone to determine his percentage of body fat? What are normal values for percent body fat for men and women? T.S., Livonia

T.S., Livonia

The Limitations of standard height eight tables were first illustrated in the early 1946s when Dr. Albert Behnke, a navy medical doctor, made a detailed study of the body fatness of professional football players.

When the players' weights were compared with those recommended from insurance tables, most were designated as markedly overweight. However, a more careful evaluation of body composition revealed that almost all the players were quite lean and had only a small percentage of body tatness.

These data were among the first to illustrate that overweight due to a preponderance of bone and muscle does not have the same significance as overweight due to excessive fatty tissue. Hence, the standard scale weight may not truly reflect the degree of body fatness.

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THE MOST ACCURATE method yet devised for estimating body fatness is the underwater weighing technique.

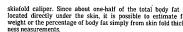
The method involves a comparison of the person's weight in air to that with the person submerged under water. The procedure is based on the principle that fat people float easier than their leaner counterpars, since fat tissue is less dense (weighs less) than water and other body tissues.

A more practical method to estimate body fatness, frequently employed by physiologists and nutritionists, involves the use of

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fitness

Barry Franklin



skinfold caliper. Since about one-half of the total body fat is located directly under the skin, it is possible to estimate fat weight or the percentage of body fat simply from skin fold thickness neasurements.

The tecnique takes only a few seconds to complete, with measurements taken at various sites, e.g., the back, abdomen and back of the upper arm.

Both the underwater weighing and skinfold methods require trained personnel, expensive equipment, and mathematical computations. These evaluations are often available through university fitness centers, hospitals, and recreational facilities (e.g., health clubs, YMCA, JCC) at a reasonable fee.

MEN SHOULD have a percent body fat of 15 to 18 percent, and women between 19 and 23 percent. If a man exceeds 25 percent and a woman exceeds 30 percent, they are considered obese (overfat). Incidentally, the lean appearance of the marathon runner has been confirmed by body composition measurements. The top male marathoners in the world have only 3 to 7 percent body fatness.

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