

Muscle to fat ratio is guide to fitness

United Press International
ESCONDIDO, Calif. — Weight is a poor guide to physical condition, says Tom Pipes, who prescribes exercise programs for athletes and other people who want to tone up. Pipes is head of a consulting firm, an adviser to athletes, and director of preventive and sports medicine at health and racquet club in northern San Diego County.

He said the most reliable guide is the ratio of fat to muscle. That set of numbers is obtained by being weighed twice, once under water. "WE KNOW the density of muscle, bone and fat," Pipes said. "We know that muscle and bone sink in water and fat floats. We can tell with a great deal of accuracy the proportion of fat."

The dry weight, the wet weight and a mathematical formula give Pipes the percentage of body fat. Underwater weight is measured by suspending a person from a springboard with the help of a scale-rigged plastic basket.

Men are considered in good condition if only 14 to 17 percent of their total body weight is fat. The comparable range for women is 22 to 26 percent.

The key is not really the quantity, but the quality of weight, Pipes said. "We consider obesity for men to be over 25 percent fat and for women, over 35 percent."

APPEARANCE can be deceptive. Ron Cey, the 5 foot-9-inch, 185-pound Los Angeles Dodgers third baseman, is among athletes Pipes has checked.

"He looks pudgy, but he had only 5 percent body fat," Pipes said. "He's really a very fit athlete."

Pipes found the expected low percentage of body fat on jockeys, but learned from studying Willie Shoemaker that Shoemaker utilizes oxygen very well and is strong.

"They don't just sit up there on a horse. They work a lot harder than I thought."

Athletes' condition varies widely from sport to sport and sometimes from position to position, he said.

He rated boxers highest in overall fitness, followed in order by basketball, football, hockey, soccer and baseball players.

He called Cey an exception; pitchers generally are the most fit among baseball players.

RUNNING BACKS are the most fit of professional football players," Pipes said. "Wide receivers and defensive backs are next."

Pipes, 26, is working toward a doctorate in exercise physiology at the University of Southern California. Originally he studied physical education and physiology at the University of California at Davis to try to improve as a discus thrower.

His testing of sports pros was done largely under the auspices of the National Athletic Health Institute. He has advised teams in professional baseball, basketball, football and hockey. He will be a consultant to the 1980 U.S. Olympic team.

"The whole idea of this field, preventive medicine, or sports medicine, is screening people," Pipes said. "We can give them a fitness prescription."

HE ESTABLISHES three components for each exercise program: frequency, duration and intensity.

"If (as a do-it-yourself exerciser) you don't know what to do and how much to do, you have a problem," Pipes said.

He helps club members choose body-building activities such as tennis, racquetball, swimming or yoga. He then works out a prescription to strengthen the muscles, heart and lungs without overtaxing them.

"More and more people are giving up jogging because they think there is no other way," Pipes said, stressing the need for variety in workouts. "Any exercise that you do

\$100 to be given instead of grades in essay contest

The deadline for Texas A&M University students enrolled in English 103, 104 or 104H to submit their entries in the second annual Thomas F. Mayo Prize Essay Contest is 5 p.m. Monday.

A \$100 prize, memorializing the former head of Texas A&M's English Department and longtime college librarian, will be awarded in December to the best entry. Honorable mentions will go to runners-up.

Students in the English classes must submit an entry through their teacher, who can provide specific information on format. Essays may not exceed 750 words.

Entries will be judged on the interest or significance of the thesis in addition to originality, fluency, vividness, organization and mechanics.

Mayo, a Rhodes Scholar and one of William Faulkner's high school teachers, died in 1954.

Mayo was author of "Epicurus in England, 1650-1725" and he first taught at Texas A&M in 1916 before going to Oxford University and serving in the Naval Reserve during World War I. He returned here permanently in 1921 and served as the head of the English Department from 1944-1952.

Campus Names

Air Force cites Ags

Service by Texas Aggies in the U. S. Air Force has been recognized with a unique award and decorations.

Cited were Capt. Gerald D. Ball of College Station; Capt. Hilmar C. Druibert, New Braunfels and 1st Lt. Steven J. Nugent, Smyrna, GA.

Ball was named the Outstanding Officer Mobilization Augmentee of 1976. He received the award as the most deserving assigned officer reservist while working at Randolph AFB as an operations research analyst in Air

Training Command (ATC) headquarters.

Druibert received his third Commendation Medal for service at Shu Lin Kou Air Station, Taiwan. This 1967 A&M graduate was operations-maintenance and programs chief of the civil engineering branch.

A 1973 Texas A&M graduate in accounting, Nugent was awarded the Commendation Medal for service at Ankara Common Defense Installation in Turkey. The accounting and finance officer was presented the medal at Moody AFB, GA.

General to review

Retired Army Lt. Gen. James F. Hollingsworth will review the Corps of Cadets Saturday.

Hollingsworth completed his career with command of the I Corps Group in Korea in 1973-76. The group was the largest field army command in the world, consisting of 13 divisions of Republic of Korea and U.S. troops.

Hollingsworth retired in August 1976. He earned a sixth

Purple Heart while commanding the 185,000-man Korean group.

Hollingsworth's citations and decorations include three Distinguished Service Crosses, four Distinguished Service Medals, four Silver Stars, three Legions of Merit and the Soldier's Medal. The latter is given only in extraordinary non-combat circumstances.

The Corps of Cadets march-in will be at 12:30 p.m. Saturday before the Texas A&M-SMU football game. Kickoff is at 1:30 p.m.



J. F. Hollingsworth

GAMERAMA

Rules for Playing Gamerama SERIES

186,500.00

GAMERAMA

THESE PRICES GOOD THURS., FRI., SAT.,
OCTOBER 27-28-29, 1977

Swift Proten Heavy Beef
Chuck Roast
Boneless
99
lb.

U.S.D.A. Grade A Cut Up
FRYERS
contains:
2 breast portions with backs
2 leg portions with backs
2 wings plus giblets
37
lb.

Play the all New Series *3
gamerama

PRIZE VALUE	REMAINING * OF PRIZES	ODDS FOR 1 SHIRT VISIT	ODDS FOR 10 SHIRT VISITS	ODDS FOR 26 SHIRT VISITS
1,000.00	40	205,000 to 1	15,769 to 1	7,885 to 1
200.00	420	19,524 to 1	1,502 to 1	751 to 1
20.00	880	9,318 to 1	717 to 1	358 to 1
5.00	2,800	2,929 to 1	225 to 1	113 to 1
2.00	8,500	959 to 1	74 to 1	37 to 1
1.00	55,800	147 to 1	11 to 1	5.5 to 1
Total * OF PRIZES	68,490	119 to 1	9 to 1	4.5 to 1

*This game being played in the eighty-one (81) participating Piggy Wiggly stores located in Louisiana, Arkansas, western Texas, southeastern Oklahoma and western Mississippi.

Play the all New Series
gamerama
WIN UP TO \$1000

SMOKED PICNICS Neuhoff Whole 6-8lb. avg. lb. **58**

Mohawk CANNED HAMS 3 lb. can 4.49	Swift Proten Boneless SAVOY STEAK lb. 1.39	Amour Star SLICED BACON 1lb. pkg. 1.39	LUNCH MEAT
Neuhoff Ends & BACON PIECES 3 lb. box 1.99	Swift Proten Boneless CHAR-BROIL STEAK lb. 1.29	Amour Star Regular or BEEF FRANKS 12oz. pkg. 66	Neuhoff Old World Bologna 49
Amour Star Cornish GAME HENS 18oz. each 99	Medium Size Pork SPARERIBS lb. 99	Borden Sliced Singles AMERICAN CHEESE 12oz. pkg. 1.19	Beef Bologna-Salami-P&P 6oz. pkg. 49
			Neuhoff Sliced SMOKED PICNICS lb. 69

U.S.D.A. Grade "A" Whole **FRYERS 38** lb.

MRS. TUCKERS CREAMY **SHORTENING 79** 42oz. can

Limit 1 please with \$7.50 or more purchase

Thirsty **Bounty Towels**
jumbo 130ct. roll **54**

Hi-C Assorted **Fruit Drinks**
46oz. can **48**

Hunt Yellow **Cling Peaches**
3 *300 15oz. cans **1**

CAKE MIX Duncan Hines Layer 18.5oz. box 59	ALKA SELTZER List #113 25 tablets 69	RAGU SAUCE Spaghetti 32oz. jar 99
VEG-ALL Larsen Mixed Veg. 3 16oz. cans 1	CLOSE-UP List #109 12' Off 4.6oz. tube 69	CHIPS-AHOY Cookies 14oz. pkg. 89
SPAGHETTI American Beauty 24oz. pkg. 59	BAYER List #114 100 tablets 89	TOMATOES Rotel w/chilies 3 10 1/2oz. cans 1
PRINGLES Potato Chips 9oz. twin pack 69	AJAX CLEANSER 4' Off 14oz. can 25	COLA DRINKS King Kooler 5 33.8oz. bts. 1
RAISINS Sun Giant Seedless 11oz. pkg. 69		Old Milwaukee BEER 6 12 oz. bottles 1.19

MARYLAND CLUB GROUND **COFFEE 2** 1lb. can

Limit 1 please with \$7.50 or more purchase

California **Salad Tomatoes**
3 lbs. **1**

US #1 **Iceberg Lettuce**
3 heads **1**

RUSSET POTATOES US #1 Colorado 10 lb. bag 99	D'ANJOU PEARS Washington 3 lbs. 1
RED DEL. APPLES Extra Fancy 3 lbs. 1	JUICE ORANGES Sweets 4 lbs. 1

DOUBLE S&H Green Stamps every Tuesday with \$2.50 or more purchase.

HONEY
Just one of the hundreds of topics in
VOLUME 11
BRITANNICA JUNIOR ENCYCLOPAEDIA
on sale this week
\$2.99
VOL. ONE 49' DOUBLE BONUS OFFER! SAVE \$5.99! Details at store.

★ 2700 Texas Ave. South
★ 4300 Texas Ave.
★ 3516 Texas Ave.
★ 200 East 24th St.
★ 9 Redmond Terrace
COLLEGE STATION and BRYAN, TEXAS

we welcome FOOD STAMP SHOPPERS

WE GIVE S&H GREEN STAMPS

WE GIVE S&H GREEN STAMPS