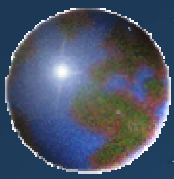


The Center for Human Nutrition

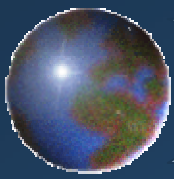
International Center for Sports
Nutrition



Nutrition and Physical Performance

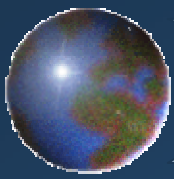


Very likely one of
the oldest practiced
sub-specialties of
nutrition



Vitamin Supplementation

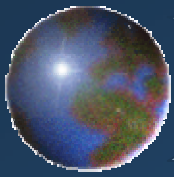
- Has been of interest to athletes since the 1930s



1939 Tour de France

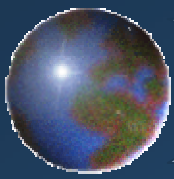
Cyclists, at the front of the pack, reportedly performed better after taking vitamin supplements





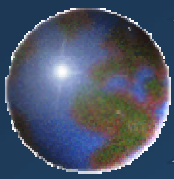
Who is an athlete?





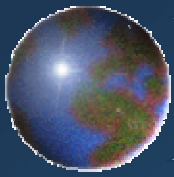
Little League to Professional





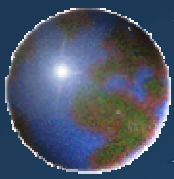
Progression of Sport

- ⊕ Professional - highly skilled participants
- ⊕ Athletic - margin of excellence in performance
- ⊕ Recreational - sport activity for fitness & fun
- ⊕ Educational - includes teaching sport skills, etc.



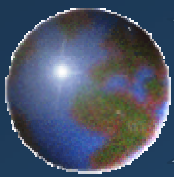
Olympic Athletes





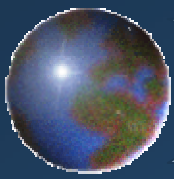
Athletes participating in Olympic Sanctioned Competitions





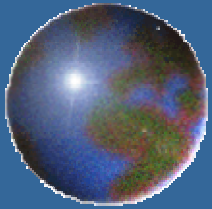
American Athletes Participating in the 2000 Olympic Summer Games

- 602 team members
- data collected on 592

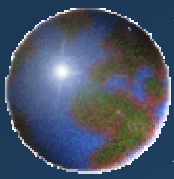


Of the Athletes Who Reported Taking Dietary Supplements

- 45% were female
- 55% were male

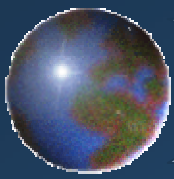


*Multi-vitamin/minerals are
the most commonly taken
dietary supplement*



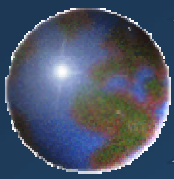
69 Athletes - 1982

- vitamins/minerals	92%
- vitamins	38%
- minerals	20%
- multinutrient liquid/powder	10%
- protein	6%
- injectable B complex	4%
- yeast	2%



Reasons given by high school athletes

- ⊕ Growth
- ⊕ Preventing illness
- ⊕ Treating illness
- ⊕ Performance
- ⊕ Weakness
- ⊕ Muscle development



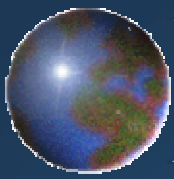
Reasons given by college athletes (top 7)

Males

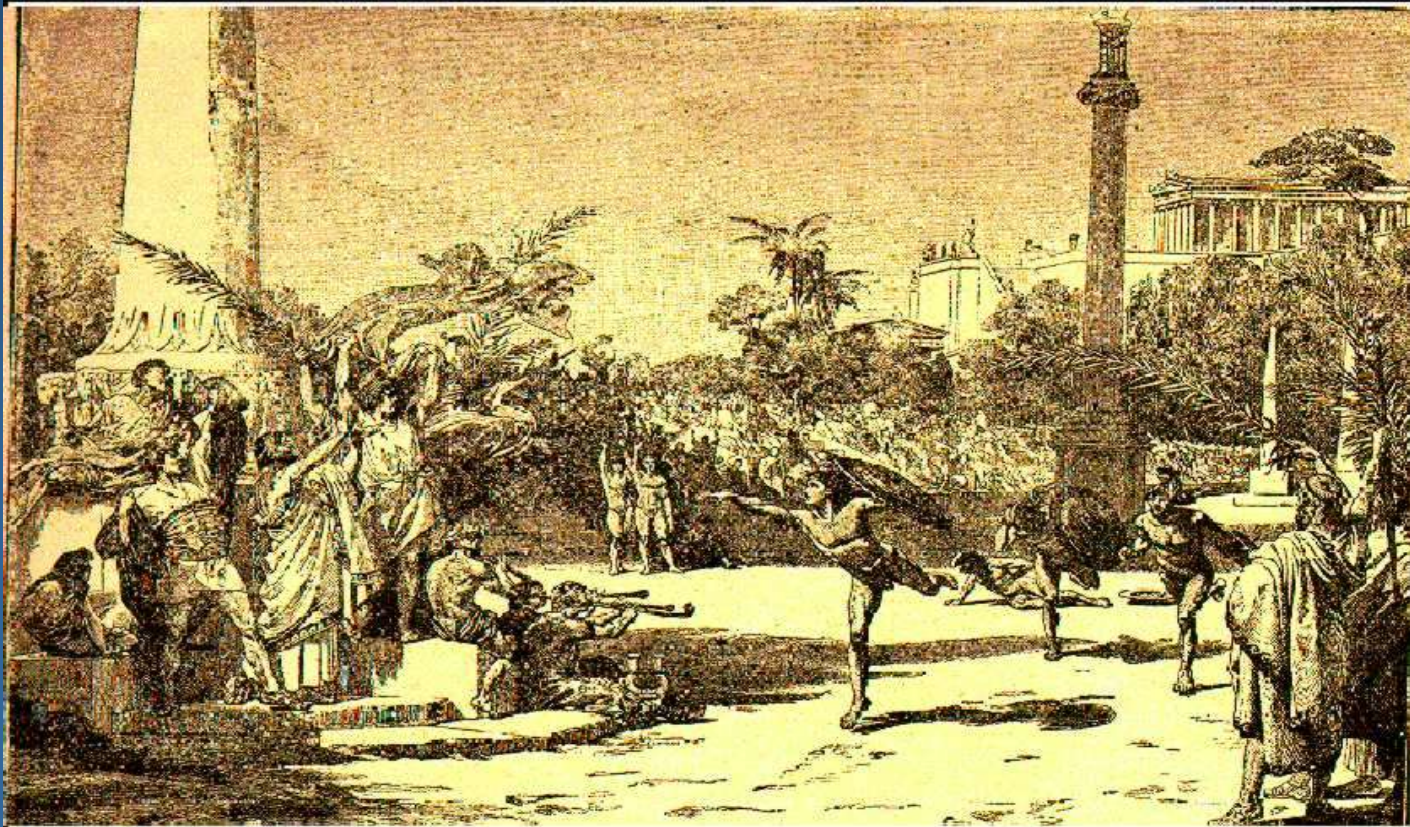
- improve athletic performance
- build muscle
- recommended by family or friend
- feel better/increased energy
- recommended by coach or trainer
- prevent disease
- recommended by nutritionist or dietitian

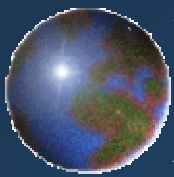
Females

- recommended by family member or friend
- prevent disease
- recommended by coach or trainer
- recommended by nutritionist or dietitian
- recommended by physician or pharmacist
- inadequate diet
- improve athletic performance



Training and Dietary Rituals

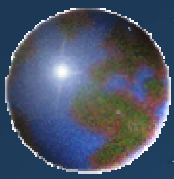




NFL Football

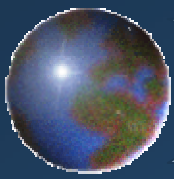
- high school	971,000
- college	54,000
- scouted by NFL	6,000
- invited to combine	340
- will play 4 or more seasons	150

(1999)



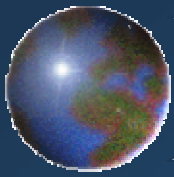
The Future





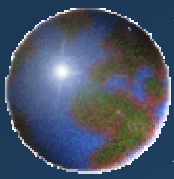
Performance-Enhancing Products





Weekend Warriors and Recreational Athletes





Research Limitations

- which sport and which measures
- degree of change needed for effect
- responders and non-responders
- what level of athletic accomplishment