

AGES 16 / 18 AND UNDER
Nutrition



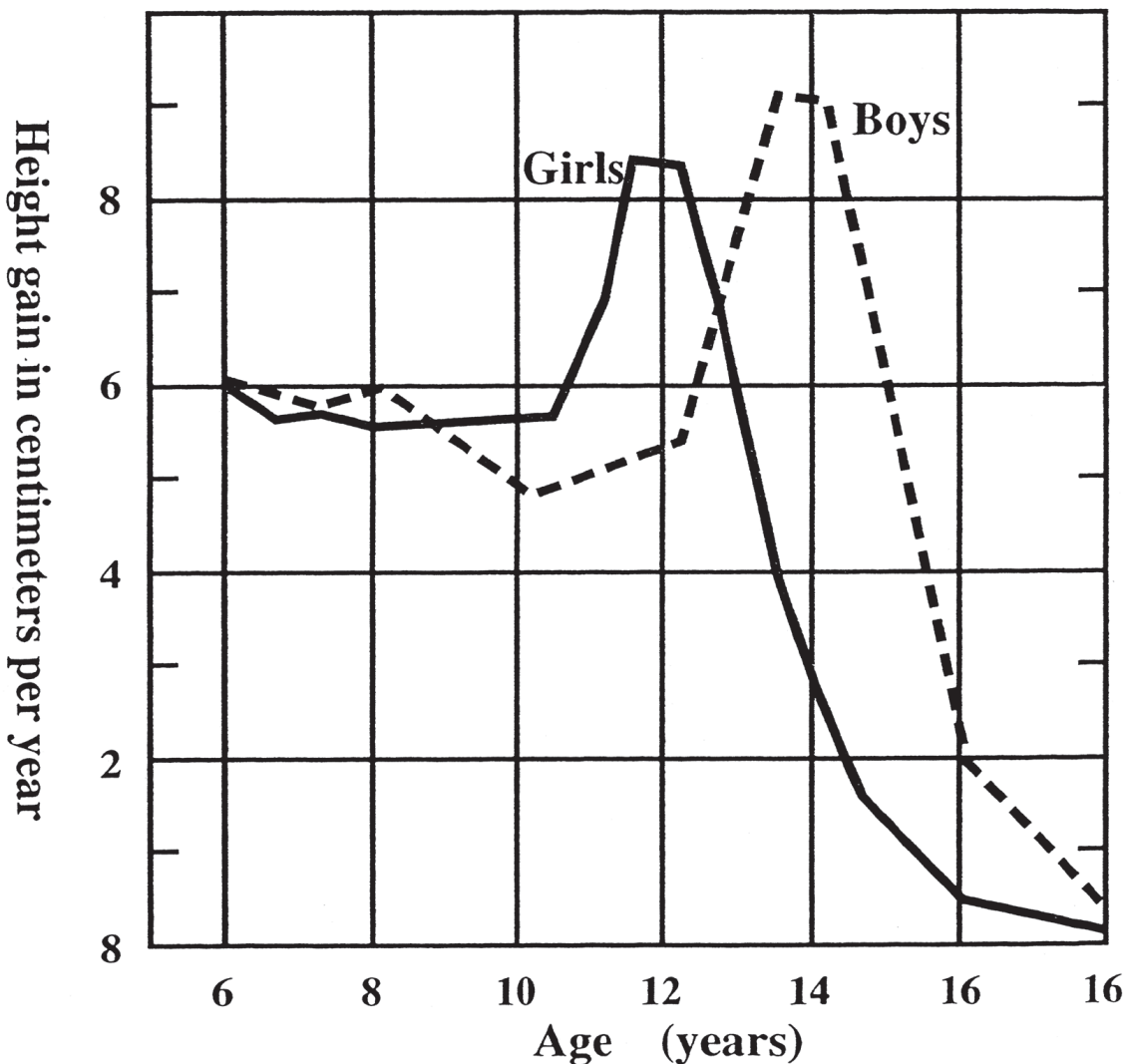
LESSON WORKBOOK



DAVE ELLIS



- Recovery plays a bigger role as athletes mature. Elite athletes, with the help of coaches, set the bar high when it comes to recovery.
- Some major factors that negatively affect recovery:
 - o Lack of sleep
 - o Binge eating
 - o Inadequate hydration after training
- As these athletes develop, they are more peer-focused and become less dependant on parents.
- Although all players are entering the phase of peak height velocity, female athletes will develop earlier.
- By this stage of development, in general, males have caught up to their female counterparts and may still be growing.
- Females tend to now add sex-specific body fat as a normal part of development.
- During the adolescent growth spurt:
 - o On average, Males gain 70 pounds and grow 11 inches.
 - o On average, Females gain 50 pounds and grow 10 inches.



- Athletes should try to eat every four hours.
 - Breakfast
 - Lunch
 - Dinner
 - PM Snack (light protein in general)
- Young athletes should become familiar with the idea of changing the metabolic mix. This involves eating for activity as opposed to eating for inactivity. For example, on a non-training day the athlete should cut back on sugar, starch and fat.
- Fueling Tactics is a 3 step system for sports nutrition that divides foods into 3 groups.
- **Step 1 Foods** – Learn to value the benefits of fresh produce and healthy oils with meals.
 - o Foods such as fresh produce help players avoid getting run down and sick.
 - o In general, fresh is better than frozen and frozen is better than canned.
 - o Fruits and vegetables are rich in antioxidants. The fresher and more colorful, the better.
 - o A deficiency in this step makes athletes vulnerable to free radicals and sickness.
 - o A simple coaching cue here is to “get some color on your plate.”
 - o If we can encourage young athletes to develop a love of fresh produce, it will be easier for healthy eating to become a life-long habit. Young athletes should learn to value these foods like medicine.



- **Step 2 Foods** – Carbohydrates are important sources of energy for a young athlete.
 - o It's important to target fiber-rich complex carbohydrates whenever possible.
 - o On active training days, about half of the food on an athlete's plate should come from complex, fiber-rich carbohydrates.
 - o On off-days, the athlete should cut back on sugar, starch and fat. On these days, approximately one quarter of the food on the athlete's plate should be in the form of carbohydrates.
- **Step 3 Foods** – Protein sources are critical for recovery and supporting growth.
 - o High level athletes should have a plan to rehydrate and have a protein source as soon as possible after workouts. Chocolate milk is an example of an effective recovery beverage.
 - o There is great value in diversifying protein sources as it comes in different sources with different benefits.
 - o For example, red meat is loaded with iron, dairy proteins are rich in calcium and vegetables have cardiovascular benefits.
 - o Athletes should eat more lean protein sources on non-training days. A lean source of protein has about half as many grams of fat as compared to grams of protein.
 - o Athletes should learn how to read food labels and understand what lean, medium and high-fat sources of protein are.
 - o For example:
 - 3 g fat, 7 g protein = LEAN
 - 7 g fat, 7 g protein = MEDIUM
 - 9 g fat, 7 g protein = HIGH
- Pre-Game Meals
 - o Avoid loading up on sugar.
 - o Avoid fast-digesting carbohydrates and high-fat protein sources.
 - o Avoid foods that are very spicy.





Here are some examples of foods in the 3 Steps.

STEP 1: Learn to VALUE the benefits of FRESH PRODUCE and HEALTHY OILS with meals.

VITAMIN C & CAROTENOIDS

Fruits: Cantaloupe, Mango, Tangerines, Mandarin Oranges

Vegetables: Sweet Potatoes, Sweet Red Bell Peppers, Yams, Butternut Squash, Asparagus, Minestrone Soup, Salsa with Fresh Herbs and Green Peppers

Dark Salad Greens: Broccoli Leaves, Spinach, Kale, Bok Choy

Herbs & Spices: Paprika, Chili Powder, Ground Cayenne, Ground Basil, Fresh Parsley, Fresh Thyme, Dried Rosemary, Mint Leaves

VITAMIN C

Fruits: Currants, Kiwi, Guava, Strawberries, Oranges, Lemons, Red Raspberries, Honeydew Melon, Cranberries, Blueberries

Vegetables: Green & Yellow Peppers or Chiles, Cauliflower, Baby Zucchini, Pea Pods or Snow Peas, Red & Green Cabbage

Herbs & Spices: Clove, Saffron, Black & White Pepper, Fennel Seed, Yellow Mustard Seed, Dill Seed, Garlic Powder

CAROTENOIDS

Fruits: Kiwi Fruit, Apricots

Vegetables: Carrots, Pumpkin, Yellow Squash, Vegetable Soups, Canned Tomato Puree, Grape Leaves

VITAMIN E

Soybean Oil, Corn Oil, Rice & Wheat Bran, Soybeans, Dried Pine Nuts, Prunes, Pea Pods, Garbanzo Beans, Avocado, Guacamole

COMPLEMENTARY ANTIOXIDANTS

Apples, Capers, Celery, Dark Cocoa, Garlic, Ginger, Grapes, Lavender

STEP 2: Select fiber rich **STARCHES** first and reduce fast digesting **SUGARS** when inactive

SLOW DIGESTING FIBER RICH STARCHES

Vegetables:	Cooked Carrots, Corn, Carrot Juice
Potatoes / Starches:	Boiled White Potatoes, Sweet Potatoes, Yams
Beans:	Peanuts, Soybeans, Lentils, Kidney Beans, Lima Beans, Pinto Beans
Soups:	Tomato, Black Bean, Lentil, Green Pea, Split Pea
Pasta:	Soy or Egg Enriched Spaghetti or Noodles, Tortellini, Macaroni, Linguine, Gnocchi
Grains / Rice:	White Rice, Couscous, Brown Rice, Long Grain White Rice
Breads & Rolls:	Pumpernickel, Sourdough, Pita Bread, High Fiber Wheat Bread,
Crackers / Snack Chips:	Fried Potato Chips, Rye Crisps, Wheat Crackers, Wheat Thins
Cereals:	Puffed Wheat, Shredded Wheat, Special K
Fruits:	Grapefruit, Prunes, Dried Apricots, Pears, Apples, Plums, Peaches, Oranges, Bananas, Figs, Raisins, Pineapples
Sweets:	Peanut M & M's, Fruit Flavored Yogurt, Chocolate Milk, Snickers Bar, Puddings

FAST DIGESTING SUGARS & STARCHES

Potatoes / Starches:	Stuffing, French Fries, Instant Mashed Potatoes
Crackers / Snack Chips:	Soda Crackers, Graham Crackers, Gingerbread, Rice Cakes
Grains / Rice:	Tapioca, Short Grain White Rice, Instant White Rice, Brown Rice Pasta
Bread / Breakfast Items:	Plain Bagel, Breakfast Cereal Bar, English Muffin, Dark Rye, Waffles, Pancakes
Cereal:	Cream of Wheat, Corn Flakes, Rice Chex, Most Cartoon Character Cereals
Fruits & Sweets:	Sweetened Soft Drinks, Skittles, Life Savers, Vanilla Wafers, Jelly Beans

**STEP 3: Always DIVERSIFY your protein sources and select LOWER FAT sources when inactive****LEAN PROTEIN Animal Sources:**

Eggs / Beef / Game:	Eggs Whites, Egg Substitutes, Ground Round, Roast Beef, T-Bone, Porterhouse, Veal, Venison, Buffalo, Rabbit
Pork / Lamb:	Canadian Bacon, Tenderloin, Center Loin Chop, Lamb Roast, Chop or Leg
Poultry:	Chicken, Turkey, Cornish Hen, Duck, Goose
Fish / Shellfish:	Clams, Crab, Lobster, Scallops, Shrimp, Flounder, Haddock, Halibut, Salmon, Oysters
Dairy Sources:	Skim 1% Milk, Buttermilk
Vegetable Sources:	Beans, Peas, Lentils, Soy Nuts, Soy Burgers

MEDIUM FAT PROTEIN Animal Sources:

Eggs / Beef:	Corned Beef, Short Ribs, Fried Veal
Pork / Lamb:	Top Loin, Lamb Rib, Ground Hot Dog / Sausage
Poultry:	Poultry (dark meat with skin), Ground Turkey, Fried Chicken
Fish / Shellfish:	Any Fried Fish or Seafood
Dairy Sources:	2% Reduced Fat Milk, Cottage Cheese, White Cheeses
Vegetable Sources:	Tofu, Soy Yogurt, Tempah, Soy Milk,

HIGH FAT PROTEIN Animal Sources:

Beef:	75% Lean Ground Beef, Beef Ribs
Pork:	Spareribs, Ground Pork, Bacon, Hot Dogs / Sausages
Dairy Sources:	Whole Milk, Cottage Cheese, Yellow Cheeses
Vegetable Sources:	Peanut Butter

