Gender Effective Coaching

The Physical Aspects

Table 1.1 Physiological Sex Differences Between Women and Men (Aged 20-30 Years)

Physiological characteristic	Women	Men
Sex-specific hormones*	Estrogen: 30-200 pg/ml Progesterone: 0.5-15 ng/ml Testosterone: <500 pg/ml	Estrogen: <5 pg/ml Progesterone: <0.5 ng/ml Testosterone: 500-10,000 pg/ml
Anatomy	Wider hips Larger Q-angle	Wider shoulders
Average body fat	27%	15%
Essential fat	12%	3%
Maximum cardiac output	20 L/min	30 L/min
Hemoglobin*	13.7 g/dl (normal range is 12-16 g/dl)	15.8 g/dl (normal range is 14-18 g/dl)
Blood volume	4.5-5 L	5-6 L
Maximum oxygen consumption (VO_2max)	34-41 ml/kg/min	40-48 ml/kg/min
Metabolism	Greater reliance on fat	Greater reliance on glycogen and protein during prolonged exercise

*pg/ml=picograms per milliliter, ng/ml=nanograms per milliliter, g/dl=grams per deciliter.

Adapted from R.A. Robergs and S.O. Roberts, 1997, *Exercise physiology: Exercise, performance, and clinical applications* (St. Louis: Mosby), 566.

Comparison After Age 10

Girls

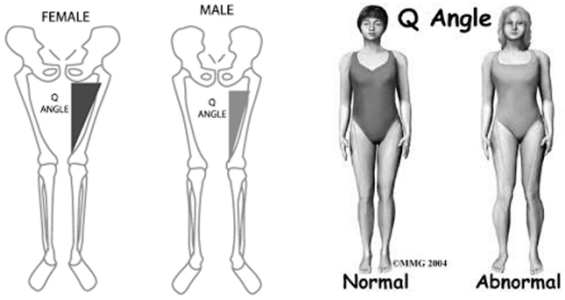
- Increase in estrogen and progesterone
- Larger, wider hips
- Larger Q-angle
- Shorter strides

speed = stride length x stride rate

Boys

- Increase in testosterone
- Shoulders broaden
- Increase in muscle

Comparison of Q Angle



Body Weight and Composition

Women

- Adjust food intake to match energy output
- Body holds on to a certain %fat
- Essential fat 12%
- Higher nonessential fat

Men

- Lose weight easier
- Energy output transfers to weight loss
- Essential fat 3%
- Lower nonessential fat

Cardiovascular Differences

Women

- Smaller hearts
- VO2 max 20 l/min
- Lower blood volume
- Lower hemoglobin
- Training increases VO2max 20%

Men

- Greater stroke volume
- VO2 max 30 l/min
- Higher blood volume
- Higher hemoglobin
- Training increases VO2 max 20%

Muscles, Recovery, Metabolism

Women	Men
• Smaller muscle mass	• Larger muscle mass
• Use more fat when below AT, 39% fat fuel	• Use less fat when below AT, 22% fat fuel
• Deplete glycogen slower	• Deplete glycogen faster
• Less protein breakdown	• More protein breakdown due to lack of glycogen
• Use less protein in exercise	• Need more protein, carbs
• Replenish carbs to recover	• Replenish carbs & protein to recover

Nutrients for Female Runners

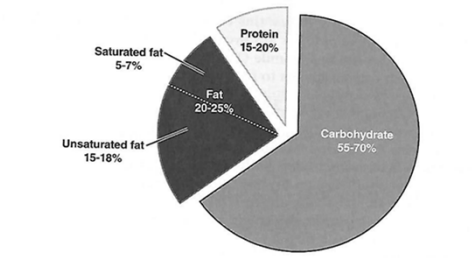


Figure 14.1 Recommended macronutrient composition of total caloric intake.

Female Athlete Triad

- Elite female athletes often more closely resemble male athletes in weight and hips
- Consequently females compensate by losing weight
- Leads to eating disorders, amenorrhea, osteoporosis
- Stress fractures

Female Athlete Triad

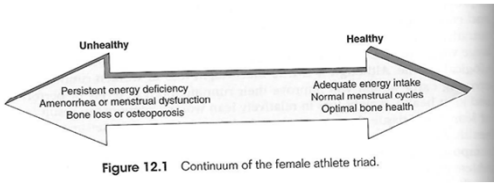


Figure 12.1 Continuum of the female athlete triad.

Menstrual Cycle

- Ok to run all month
- Best performance = week after ovulation, estrogen is higher and progesterone is not as high
- Contraceptives lower progesterone but potentially lead to weight gain
- Worst performance = few days before and during menstruation, progesterone is high
- Contraceptives differ, triphasic decreases VO2 max

Injury Causes

- Over training, too much too soon (Patellofemoral, IT band)
- Low bone density (stress fractures)
- Muscle imbalance (Patellofemoral pain)
- Stiff or worn out shoes (IT band)
- Tight muscles

Treatments/Prevention

- Time off
- Mileage progression limited to 10% increase per week
- Ice
- Muscle/Core strengthening
- Orthotics
- Stretching
- Heel lift
- Foam roller

Summary

- Biggest difference between male and female runners is the smaller cardiovascular system and greater percentage of body fat
- Fat percentage accounts for 75% of difference – caution about female athlete triad
- VO2 max accounts for 20% of difference
- Coed training program help girls to run with increased stride length, top female runners run faster
- Running form, strength training for core/thighs
- Early identification of knee pains/treatment
- Stretching
- Importance of warm-up

GENDER EFFECTIVE COACHING

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GENDER EFFECTIVE COACHING

THE MAIN OBJECTIVE IS TO UNDERSTAND THE GENDER DIFFERENCES AND THE APPROACHES COACHES MAY USE TO OBTAIN THE BEST RESULT FROM EACH ATHLETE.

SELF-ESTEEM

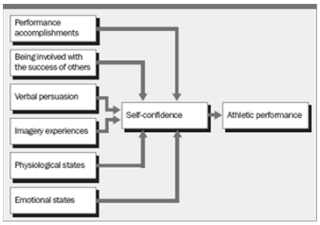
THIS IS A CRUCIAL PART OF COACHING, THE COACH MUST NEVER USE THEIR AUTHORITY TO DEGRADE ANY PART OF AN ATHLETE'S SELF ESTEEM.

OUR MAIN GOAL IS TO HELP ATHLETES BELIEVE IN THEMSELVES.

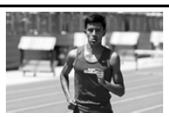
Males tend to have a high self esteem, often thinking they are better than they really are.	**Males sometimes need to be reminded that they still have areas to improve.**	**It is important that we help the athlete to understand areas of strength as well as areas of improvement.**
Early 2000 study showed that 60 percent of elementary aged girls are happy the way they are.	In high school only 29 percent of girls feel happy with the way they are.	It is important to make sure we are helping to build the athletes self esteem, this has a direct impact on their performance.

MODEL OF SELF-CONFIDENCE

WWW.PPONLINE.CO.UK/SPORTSPSYCHOLOGY.COM



FEMALE VS. MALE EGOS



FEMALES

- CONFIDENCE IS A STRUGGLE
- NEED TO FEEL GOOD TO DO GOOD
- DEPENDENT
- CONFIDENCE IS BASED ON EXTERNAL FACTORS

MALES

- OVERCONFIDENT
- INDEPENDENT
- CONFIDENCE IS BASED ON INTERNAL FACTORES
- TOUGH EXTERIOR

MOTIVATION

MALES

- MOTIVATED TO WIN
- LOVE THE COMPETITION
- DRIVEN BY POWER
- WANT TO BE THE BEST IN THE SPORT

FEMALES

- MOTIVATED TO PLEASE OTHERS
- WANT TO FEEL LIKED
- NEED A CONNECTION WITH THE COACH
- DRIVEN BY ACCEPTANCE

CRITICISM

MALE ATHLETES TEND TO DEPERSONALIZE CRITICISM.

FEMALE ATHLETES TEND TO TAKE CRITICISM PERSONALLY, EVEN IF THE COACH IS ADDRESSING THE ENTIRE TEAM, FEMALES WILL BELIEVE IT ONLY APPLIES TO THEM, AND THIS WILL AFFECT THEIR SELF-CONFIDENCE.

PRESSURE

THIS IS A CASE BY CASE BASIS. THIS IS NOT INFLUENCED BY GENDER.

ABILITY TO HANDLE STRESS AND COMPETITIVE PRESSURE IS DERIVED FROM SEVERAL FACTORS:

1. HOW WE WERE RAISED
2. OUR SKILLS AND EXPERIENCE
3. HORMONES
4. POSSIBLE GENETIC COMPONENT

BRAIN DIFFERENCES BETWEEN GENDERS

	MALES	FEMALES
Processing-gray vs white matter	Task oriented-single	Multi task oriented
Chemistry-neurochemicals	More aggressive	More bonded
Structural differences	Less connection to feelings	More connected to feelings/people
Blood flow and brain activity	Analyze emotional memory and than move on to the next task	Revisits emotional memories more than the male brain

GENDER EFFECTIVE COACHING

SUMMARY

- YOU CAN NOT COACH GIRLS LIKE YOU COACH BOYS.
- YOU MUST TAKE INTO CONSIDERATION THE DIFFERENCES IN MALES VS FEMALES, EMOTIONALLY AND PHYSICALLY.
- SELF CONFIDENCE HAS A DIRECT CORRELATION TO PERFORMANCE SO WE NEED TO MAKE SURE WE ARE HAVING A POSITIVE EFFECT ON OUR STUDENT ATHLETES.
- REMIND ATHLETES TO HAVE FUN!