

## Functional Training and Female Athletes

Trainers and coaches are always curious how training should differ between male and female athletes. Often coaches pose questions that begin or end with "but I coach women." Female athletes are physically not very different from their male counterparts. At no point should coaches lower their expectations for female athletes. Most of what I have been told about training female athletes is untrue. Whether this is unintentional is not clear to me, but most of my preconceptions about training female athletes were not accurate.

The old theory that female athletes need to stay away from body-weight upper-body exercises is untrue. Female athletes are often held back by low expectations and preconceptions. Women and girls may not be able to begin with body-weight exercise, but they are able to progress to it. After training elite female athletes in basketball, soccer, field hockey, ice hockey, and figure skating, we have found that they are able to perform exercises such as dips, push-ups, and chin-ups when they progress properly. Although they may not possess the same upper-body strength as elite male athletes, they can develop excellent upper-body strength.

I have also found that female athletes are no more flexible than male athletes in similar sports. Our elite women's ice hockey players suffer from the same tightness in the hips that our men do. Our elite female soccer players are not significantly more flexible than their male counterparts. Athletes develop tightness and inflexibility based on the repetitive patterns of their sports, not on sex.

What I have found is that women are infinitely more coachable and not as extrinsically competitive as men. By extrinsically competitive, I mean that women are not nearly as worried about what another athlete is lifting. Women tend to focus more on what they can do and less on what others are doing. This makes them easier to coach.

I have also found that body image is a huge issue for female athletes. Female athletes are much more concerned about not building muscle than male athletes are. This is a unique societal influence that coaches must be aware of and work to overcome. Statistics about weight and body fat percentages are often fabricated, inflated, or deflated and provide unrealistic expectations for female athletes. The only body fat information athletes should be provided with should come from the coach, sports medicine staff, or exercise science department. Comparing the body composition of athletes at other schools or in other programs done with different methods, at different times, by different people is comparing apples and oranges. Female athletes must be reminded what height and weight is normal for their sport and their body type. Some athletic programs have adopted a head-in-the-sand approach to issues of eating disorders, body image, and nutrition by prohibiting coaches from weighing or measuring their female athletes. This does a great disservice to the female athletes. The solution is addressing the issues, not avoiding them. Education and the promotion of positive role models are essential for female athletes. Female athletes need to be exposed to photos of athletes similar to themselves that have a body composition that is considered acceptable. All too often visual role models for women are fashion models or entertainers that do not have the attributes of the average female athlete.

The major differences for training women and girls actually centers around equipment needs and progression. Most personal trainers and strength coaches do not consider the unique equipment needs of female athletes.

Least functional  Most functional					
<b>Lower-body exercises</b>					
<b>Knee-dominant</b>					
Type of exercise	Leg press	Machine squat	Barbell squat	One-leg squat	One-leg squat on Airex pad
Rationale	Lying, no stabilization by athlete	Standing, no stabilization by athlete	Two legs	One leg	One leg with additional challenge to balance
<b>Hip-dominant</b>					
Type of exercise	Leg curl	Back extension	Two-leg SLDL or RDL*	One-leg SLDL*	One-leg SLDL* on Airex pad
Rationale	Prone, non-functional action	Prone, functional action	Standing on two legs	Standing on one leg	Standing on one leg with additional challenge to balance
<b>Upper-body exercises</b>					
<b>Horizontal press</b>					
Type of exercise	Machine bench press	Bench press	Dumbbell bench press	Push-up	Stability-ball push-up
Rationale	Supine, no stabilization by athlete	Supine, moderate stabilization	Supine, single-arm stabilization	Prone with closed chain	Prone with additional challenge to balance
<b>Vertical press</b>					
Type of exercise	Lat pull-down				Pull-up/chin-up
<b>Horizontal pull</b>					
Type of exercise	Machine row	Dumbbell row	Inverted row	One-arm, one-leg row	One-arm, two-leg rotational row
<b>Torso exercises</b>					
Type of exercise	Crunch	Russian twist	Standing lift	Standing rope lift	Machine-ball twist pass
Rationale	Lying, no rotation	Lying, with rotation	Standing without movement	Standing with weight stack	Standing with fast movement

\* SLDL = Straight-leg deadlift; RDL = Romanian deadlift (modified straight-leg deadlift)

Figure 4.7 The functional continuum.