

Female Training

The Idiot's Guide to Girls

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First let me apologize to the women who are simply interested in fitness or sports improvement who do read this... I did not write this article with you specifically in mind as my audience and I apologize for that. The reason being that I don't think that too many girls surf the web looking for a website called Ironmag! But for those that do, thank you for taking the time to read my article, you can apply this information to yourself, and I will be more than happy to answer any questions you may have. I actually wrote it with Personal Trainers, Strength Coaches, and "boyfriends" (who are generally stupid and ignorant, but I didn't have to tell you girls that did I?) in mind.

In my experience with women...ok, my experience in training or advising women on training...educate them first! Sit them down and explain that you want what they want (i.e., for them to look like a fox!) and therefore you will not design a program that will build "huge muscles" on them. Explain that even if they wanted to look like that wrestling chic that has a chin like Jay Leno that it would take a few years and quite a few "Mexican Vitamins." Secondly, explain that if at any time they feel as if they look like Arnold that all they have to do is quit for a while, and they can go back to aerobics or Tae-Bo. Explain that they will not wake up one morning with horse shoe triceps, baseball biceps, barn door lats, and camel traps (i.e., what us guys wish would happen). Explain that you cannot spot reduce the hips, love handles, stomach, or anywhere else. I honestly have a hard time



Eva Lundquist, Swedish Fitness star, is doing a set of dumbbell flies.

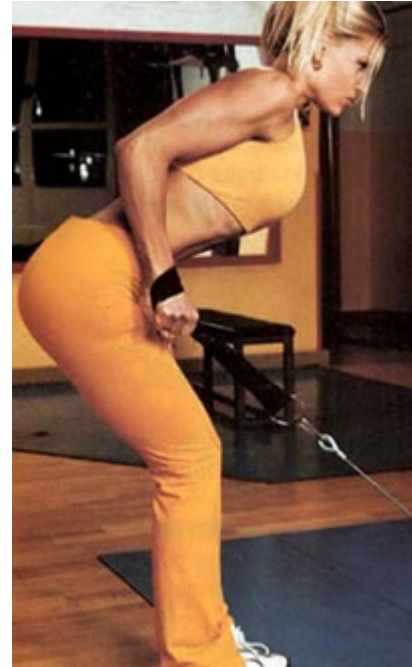
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Photo by Seth Jansson

understanding how anyone can believe such nonsense. I mean has anyone ever seen someone with nice abs and a lumpy butt? Thirdly, tell her what your doing and how your going about it. She probably won't understand the reasons why, when you explain to her that when she squats she burns twice as many calories in 1 set than on every butt and thigh toner machine in the gym. Nor will she understand the positive hormonal benefits, but explain it anyway. The more educated a person is the better. You may even spark an interest in the subject for her, and that will be to her benefit. Also, it will convince her that there is a science to 'liftin', there are right and wrong ways to do things, and that you know a little more than the average idiot.

I find it hilarious when I see guys who may have lifted in high school in a weight room "instructing" some girl, girlfriend, whatever on how to properly exercise; they have a gut, or eleventeen inch arms, or their knee joint is the biggest part of their leg, but they are obviously EXPERTS! If it was so easy why don't they shape up a little bit? I once worked with a girl twice a week. The first time we went into the "fitness center" she immediately wanted to start pounding out 20 rep sets on the Butt Blaster 11,000 ZXQ. When I explained that we do not use the Butt Blaster 11,000 ZXQ, I thought she was going to have a panic attack. Apparently it wasn't "proper" for young women to enter the free weight area. Evidently she heard a rumor that several girls had wandered in there one day and walked out looking like members of the 1976 East German Women's Swim team. Hence the apprehension of going into the free weight room, much less touching free weights. I calmly pointed to several ladies using the equipment she wanted to use and asked if that was what she wanted to look like. So as we loaded the bar for the squat...my point is many want to do what they see everyone else do. But everyone else looks like crap, and they are not getting results! RESULTS are what every training program is measured by. I don't care who wrote it, what theories it was based on, how much research backs it up, or anything else. If it does not produce results, it sucks. Not everything works for everybody all the time, but many systems of training and many vastly different methods can work if they are implemented correctly. The problem is few coaches, trainers, etc. posses the scientific and empirical knowledge to do this properly.

As for exercises, in short the basics to begin with. Squats, front squats, dead lifts, Romanian dead lifts, lunges, step-ups, glute-ham raises if a glute-ham bench is available, chin-ups, dips, and various presses (i.e., flat, decline, incline and overhead). I dislike most machines most of the time, but especially for women and beginners, therefore certainly for women beginners. Sadly, this is how most start. They do it because they assume that it's safe, but it's really the most dangerous way to go about it. They make their bodies stronger on the machines, they learn to produce greater amounts of force. Then they transition to free weights, their bodies don't know how to stabilize the load and still produce the amount of force that it's become accustomed to, therefore injury is often the result. Therefore, the more free weight movements the better, and I personally prefer/recommend Dumb Bells as much as possible, at least during the first 6 months or so of training.



*Eva Lundquist, doing triceps cable kickbacks.
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Photo by Greger Norrevik*

As for sets and reps, I would strongly recommend taking a look at Charles Poliquin's guidelines for relative strength (i.e., strength relative to bodyweight), as that will be the goal of training for most females much of the time.

Intensity: 85-100% of one rep maximum

Repetitions: 1-5 RM

Sets: 5-12

Rest Intervals: 4-5 minutes

Concentric Tempo: 1-4 seconds

Eccentric Tempo: 3-5 seconds

Total Set Duration: Under 20 seconds

However, they should have a base of training before beginning with this high a load. Beginner's can often achieve strength gains with sets of up to 20 repetitions. As training age increases intramuscular coordination will improve and less repetitions will not only be optimal, but necessary

for the desired results. Also, if she wants that "tone" look, she will need to build some muscle. As scary as this might be, it **MUST BE DONE!** Also, for body composition changes one needs a degree of volume in order to elicit greater hormonal response (i.e., greater volumes induce among other things greater amounts of Growth Hormone release, which induces fat loss and lean tissue gain). Therefore, it's my opinion that one use undulating periodization. And that's simply an accumulation phase followed by an intensification phase, the reason being; as volume goes up (For our purposes volume can be characterized as sets x reps, although note that "volume" per se is not nearly this simplistic), intensity goes down (Intensity is defined as percentage of weight relative to one's "repetition maximum" at a given weight in any lift) and vice versa. So, a 6-week leg routine may look like this:

Weeks 1-3:

Squats 4x8-12; Leg curls 4x8-12; Lunges 4x8-12 each leg; Romanian Dead Lifts 4x8-12

Weeks 4-6:

Squats 5x5; Romanian Dead Lifts 5x5

That's simply an example to show that in one microcycle you have high volume (i.e., 4 total exercises, 16 total sets, 128-192 total reps, about 60 seconds or so of time under tension for each set assuming you use a controlled tempo), and in the next microcycle you have low volume (i.e., only 2 exercises, 10 sets, and 50 reps, with a time under tension for each set around 20 seconds, and ideally with a relatively high load hence the "intensification"). Might want to check my math there, I did that in my head, and was not a math major.

The next three weeks would be an accumulation phase again. Of course you can use however many weeks you think the trainee needs 2,4,6...also, an accumulation phase can last several, say three 3 week, cycles, you would simply gradually accumulate more volume each cycle, until it was time for intensification. By using a periodization scheme such as this you will be able to manipulate gains in strength and muscle mass more efficiently. As she obtains optimal amounts of muscle mass, more and/or longer intensification phases with emphasis on relative strength may be used. Of course it goes without saying, and I'm sure you're well aware, that increased muscle mass raises the BMI which in turn helps to burn more fat throughout the day. Another thought on Periodization that

the volume and intensity of each microcycle is that females often perform better on strength test 2-3 days after the on set of menstruation due to hormonal fluctuations. Therefore, considering the physical stress of the menstruation cycle "that time of the month" may be an ideal time to lower volume and increase intensity. This may not always be feasible considering variation in menstrual cycles, however often times girls on college athletic teams tend to have their menstrual cycles approximately the same time every month because they spend so much time with each other. I have never heard of a physiological explanation for this phenomenon but I only assume that it is caused by the same mechanism that makes them go to the bathroom in groups.

As for training splits, it depends mostly on the athletes' needs and goals. In general 3-4 days a week is sufficient.

Also, renowned strength coaches Charles Staley and Charles Poliquin have suggested paying special attention to the elbow extensors and flexors on women. The reason for this is that women have a tendency towards elbow injuries as a result of joint laxity. Which makes sense, women do seem to be "double jointed" more so than men. It would make sense that pressing movements, snatches, etc., where there was a lockout could stress the joint, therefore you may want to consider that. Although, unless specific size or strength is the goal, I question the need for direct bicep/tricep work much of the time. Close grip bench presses using an 11-13 inch grip and dips will sufficiently overload the triceps. Chins will probably overload the elbow flexors just fine. I would only allow direct arm work to take up about 10%-35% of the total training volume.

Speaking of chins, most females I've worked with can do 1 or 2 to start with, but gain strength rapidly. Charles Poliquin has recommended performing eccentric reps to quickly build chinning strength. For a person who can perform 3 or less chins (i.e., a dead hang in the bottom position and forearms touching the biceps in the top position) try 3-6 sets of eccentric chins. Have the athlete lower themselves for 8-30 seconds (progressively increase the length of the set in increments of 2-5 seconds). After a few workouts add 1-3 sets of partner assisted chin-ups prior to the eccentric chins. If the trainee can perform four or more simply use progressive overload methods to increase their strength. From an empirical standpoint I've found that more sets is often the key to increasing chinning prowess whether the goal is to perform it with

more weight, or to perform more reps at a given bodyweight. Follow those guidelines and nearly any female will be out-chinning most guys in a few weeks. A good friend of mine, who would come "talk" after she got through with cardio, got to where she liked trying to squat and/or chin on days when I was doing one or the other (I nearly always do one of them anytime I walk into a gym). Finally she decided she wanted to do more than three. After 1 eccentric training session (believe it or not), this girl comes to the gym 4 days later and says, "Watch this..." and performed 8 shoulder width pronated grip chins at a 4110 tempo (4 second lowering phase, one second pause, one second concentric phase, no pause), with a dead hang at the bottom.

Often, females have poor intramuscular coordination (i.e., the ability to recruit many motor units at one time) as a result from aerobic work and too many reps with 5 lbs. dumb bells. Therefore when a lot of tension is put on the muscles, they will often see dramatic increases in strength. Chris Thibaudeau works with some figure skaters and has them do exercises like cleans, snatches, dead lifts, etc. So don't shy away from "guy" exercises. Big compound movements are the quickest way to attain fitness or sporting goals because of the high motor unit recruitment and neural drive in which they demand. Also, you probably want to correct any postural problems she may have, Chris also has a good article here at IronMag.com on the subject of [postural problems](#) and ways to correct them. One limiting factor often seen in females are tight soleus muscles which may greatly restrict squat depth. Attention to such details will increase the results of any training program.



Linda Ekwall, Swedish Fitness Champion is showing us what's it's all about..
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Aerobic Exercise...

Let me preface this by saying that unless you are a triathlete, cross country runner, or marathon runner, I see little need for a bunch of aerobic work (i.e., stair stepping, cycling, running, elyptical machines, etc.) Several reasons for this... (1) Again, let's go back to my pet peeve: RESULTS. I rarely see people who perform a lot of aerobic work achieving their body composition goals. They always want to lose another ten pounds, or they just can't make their abs show up, or their thighs just won't stop jigging. Well, build some muscle and you might solve your problem. (2) Another common problem with aerobic training is the body adapts to it very quickly. Therefore, after the initial loss of weight, results are stalled. Furthermore, if adaptation does take plae quickly why must we train it so often? (3) High amounts of aerobic work raise

resting levels of cortisol in the body. I won't get into the interactions of Cortisol, Testosterone, and Growth Hormone, but for our purposes let's just say too much cortisol is not conducive to optimal strength and/or muscular gains, or achieving body composition goals. (4) Even when aerobic training should be used, most trainers, coaches, and athletes do not properly periodize it into the overall program. In other words, they start by let's say running a mile, then after 6 weeks they've built up to 5 miles. Well, yeah you can do this, but it's far from being the most effective way. Not to mention the relative neglect of planning the time of year that this training is performed relative to the athletes' competitive season. (5) In a trained athlete, VO2 Max can be achieved in as little as 6-12 weeks. Yet often athletes will train the aerobic system virtually all year round. No, intelligent coach would suggest improving Maximal strength, eccentric strength, concentric strength, isometric strength, strength endurance, speed strength, starting strength, etc. all in the same training cycle, and certainly not all year round. Therefore, what moron made it a law that you have to train aerobically 9 months out of the year? (6) Many coaches, athletes, and/or general fitness buffs will see an athlete breathing hard after a bout of exercise and feeling "winded" and mistakenly assume that they are "out of shape." Well, how

do they get into shape? Obviously you go run a few miles! Wrong!!! It depends on the energy system that caused your fatigue as to which system you need to train. If you just sprinted up and down a basketball court 3 times before play was stopped and you feel winded, then you are not in poor aerobic shape, you have poor anaerobic conditioning, and should therefore preferentially train that energy system. (7) It is a mistake to perform aerobic training immediately before or after a resistance training session. This is a mistake I see all too often in the gym. A 5 minute warm up or cool down is fine, but not a 30-minute session on the stair master! What this does is deplete glycogen stores in the muscle tissue before you perform the type exercise that uses the most of it. Also, I have heard the argument that if you cycle, step or run (i.e., activities that primarily use the legs) you can still lift with the upper body. Sorry, your body does not burn glucose stored solely in those muscles you are actively using but it draws them out of muscle tissue from all over the body. Therefore you are effectively reducing the training effect you are getting from the resistance training routine. As for post exercise cardio...In my opinion it's even worse as it further increases cortisol and will put your body into a catabolic state (i.e., your body will use muscle and organ tissue for fuel. (8) People gravitate towards exercises that they are good at. Women typically have a higher proportion of slow twitch muscle fibers than males. Slow twitch muscles fibers are preferable for aerobic activity. Therefore, that's why there are always girls on the bikes, treadmills, steppers, etc. They're simply good at it. However, that is also why few get results. Their bodies become efficient at aerobic work over time. That is, it learns how to do more work with less energy/caloric expenditure. Now that I've bashed aerobics please don't think that all aerobic work is bad. Simply understand that most people perform way too much of it. Yes there is plenty of research that shows aerobic exercise is "good for you." However, much of the research on aerobic exercise and its health benefits does not take into account health benefits associated with resistance training and other forms of anaerobic exercise. In fact most of it flat out ignores it. In the last 10 years more and more research confirming the many positive affects of resistance training have come out, but the typical recommendations by various groups, organizations, and "experts" is to supplement aerobic training with resistance training. Is that it? What about the ability of properly designed resistance programs being able to help someone (be it an athlete or a nursing home patient) move more efficiently, its ability to correct postural deficiencies (which can often

lead to injury), work capacity, etc.? In my opinion you should supplement resistance training with aerobic training (if it is warranted). Resistance training has a more positive impact on aerobic conditioning than aerobic conditioning has on strength acquisition. Also, while the research on aerobic work is extensive, much of it is the same studies repeated using the same research methods by different individuals.

If you're an athlete, then your sport will dictate how much aerobic work you need, if any at all. If you are working out for fitness, then I see no problem with 1-3 aerobic sessions a week for 10-30 minutes. However, I would only recommend that for about 6 months out of the year, but not 6 consecutive months.

As for diet...

Most (and I use that term loosely) females get way too many carbs, and way too little fat and protein, so I assume you can guess my advice. Jack up the protein (at least 1 gram per lb. of body weight), eat fat (especially a good fat source like fish oils), and cut carbs, in my opinion the majority of carb ingestion should be in the 2-3 meals following a workout and/or at breakfast. Don't cut carbs completely (especially if she's 150 lbs., I mean how bad out of shape can she be unless she's a midget), but definitely cut back. A zone type diet may be a good option to begin with. Also, girls are bad about snacking on just carbs or carbs and fat. This causes sugar and insulin levels to take roller coaster rides all day long (not good). Require them to eat some protein (preferably at least 20 grams) every time they eat, or they can't eat. They can do this by doing something as simple as drinking a 16 oz. glass of milk (that's close to 20 grams). Also, I would suggest trying my "[Summer Six Pack](#)" diet because... well... I wrote it! Seriously though, that diet actually forces you to make better food choice decisions. Improved dietary habits will equal improved body composition whether the goal is to gain muscle, lose fat, or both.

Well, that's pretty much everything I know about girls. Hence, I'm single at the date of publication for this article! Never the less, I feel some important points have been made that should be considered when designing exercise programs for females. I have criticized either directly or indirectly many methods commonly used in training females, but frankly I don't see many common methods getting RESULTS and that is what any program should be measured by. If your goal is to lose body

a guest editorial one day on popular fitness terminology that irritates me, anyway...) you should see some changes in 2-4 weeks or your diet and training program is poorly designed. Keep that in mind if you workout under a coach or personal trainer. Ask them why you have not noticed any results! If you are a coach or trainer and do not notice results in that amount of time, reevaluate your program design methods; something may be out of place. Again, any questions or comments are welcome. Just send them to me:

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- Todd Wilson