

Here are some guidelines:

- The younger the gymnast, the more general the conditioning program should be. The pre-competitive and immature competitive gymnast is best prepared by conditioning the Prevailing Body Actions (PBA's). This is effective use of time because there are still so many skills to learn that it is desirable for him to be generally prepared for a broad variety of skills.
- As a gymnast becomes generally fit, the PBA's should be modified for the specific key skills he is working on.
- Mature gymnasts have usually already developed their general physical level. Their conditioning programs should be focused on maintenance of these levels and on specific conditioning for new skills.
- In planning the training year (particularly if the transition period is long), the conditioning should start at a general level to "build up" the body for the more specific conditioning to come. Prior to the competitive period, emphasis can shift from specific conditioning for skill training (usually strength, power, flexibility and anaerobic alactic endurance) to include more of an anaerobic lactic endurance emphasis essential to performing routines.
- To develop the energy systems required for performing routines, the most specific training is to do a lot of routines, always allowing an adequate rest interval between routines. Reference to Figure 3 will show that exercise bouts with an Exercise: Pause ratio between 1:6 to 1:3 are the most effective for developing anaerobic lactic systems. Not allowing adequate recovery (pause) time will develop the wrong energy system. There should be a gradual progression in load from doing combinations, to half-routines, to 3/4 routines, to full routines with the risk or most difficult elements left out, to full routines. Care should be taken during this type of energy system training that the gymnast stops when technique begins to break down due to fatigue. Continual repetitions in this fatigued state only reinforce bad technique.
- Start training the conditioning requirements well ahead of the time they are needed. It takes six to twelve weeks to achieve major gains in strength training (Figure 2). The coach should therefore commence strength training well in advance of the time that the gymnast is expected to master a skill. If a coach and gymnast have set a target date for successful learning of a specific skill, then the strength training program for that skill should start at least six to twelve weeks ahead of the target date.
- Similarly, it takes eight to twelve weeks to achieve major gains in anaerobic lactic conditioning (Figure 3). It would then make sense to begin this type of conditioning for routines at least eight weeks before polished performance of the routines was required.

(b) Physical Conditioning To Optimize Training Time

This type of conditioning is different from the development of the strength, power and flexibility required to execute particular skills. The goal of this second type of conditioning is to optimize the use of training time by conditioning the athlete to be able to do more skills or routines per practice. The name of the game in skill learning is repetitions — lots and lots of repetitions. Hence, being fit enough to work at high volumes becomes a conditioning goal. This is a demand on the energy systems of the body.

The development of this fitness component is probably best done within the skill learning sessions rather than in a conditioning period at the end of practice. By planning and monitoring the length of time of each turn, one can plan an appropriate rest period between turns in order to achieve an Exercise: Pause (E:P) ratio that is best suited to the energy system being developed. The conditioning objective is to improve the appropriate energy system so that:

- it more easily provides the energy required for a turn on the apparatus (increase the amount of work per turn).
- it recovers more quickly from each turn (increase the number of turns per practice).

The choice of energy systems depends on whether the gymnast is training skills or routines. If single skills are being trained, then the gymnast is usually working on improving the anaerobic alactic system (exercise bouts of approximately 10 seconds) requiring E:P ratios of about 1:5 or 1:6 (Figure 3). The turns and rests should be