



## **In Season Basketball Conditioning: An Intelligent Approach**

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This article is intended to provide guidelines for basketball coaches and players on how they should structure and implement their conditioning program during the basketball season. Because most of the athletes' energy will be directed at practice sessions and the games themselves, care should be taken to make sure that athletes do not 'overdo it' when including their conditioning work into their overall program. In particular, high-stress activities such as jumping and plyometrics should be kept to a minimum – if not excluded altogether – since the sport of basketball includes a high number of high intensity jumping movements and direction changes throughout the game. It is not uncommon to find many basketball players complaining of knee, low back, foot and ankle pain throughout the season. Excessive explosive-power work would only make matters worse.

### **What Can Players Do In-Season?**

Because many of the speed, power and endurance components will be accommodated by simply playing basketball, there is little need for extensive sprinting, agility, jumping and endurance training during the competitive season – particularly if the players have a good off-season training program. There are only a few specific situations where these types of training should be included in a program:

#### **1. Players Who Play Most of the Games (More than 10 minutes per game)\***

For players who see lots of floor time, their conditioning program should be handled very carefully. If there is a specific need to improve speed, agility, or jumping the training programs for these players should only include low volumes of this type of training, with adequate recovery provided after such training (i.e. short sprint and/or jumping session with at least 48-72 hours before next heavy workout or game). Otherwise, trying to include this type of training into the schedule of a top player could be counter-productive.

Additionally, the top players should not try to seek significant endurance gains mid-season (i.e. long runs) outside of their regular training. If necessary, low intensity endurance training can be undertaken through low-impact activities such as cycling or pool work (running, swimming).

\* These are rough guidelines for selecting players for conditioning regimes. As always, individual differences will prevail for any decision on conditioning, and should be made on the spot by the coach.

## **2. Players Who See Very Little Game Time (Less than 10 minutes per game)\***

For players who are not starters, or top back-ups, the training programs can be more comprehensive and include higher volumes – although not significantly higher. Time can be taken to work on specific goals – i.e. increasing speed, working on agility, developing jumping power – because the day-to-day demands on these players may be less. For the high intensity components such as speed, power and agility, it is best to conduct this training when the athletes are fresh (i.e. before regular practice or within a separate training session). Assigning this type of work after a regular practice will only result in poor quality training, as the athletes are too fatigued to generate qualitative results.

Outside of the realm of speed, power and agility activities, the one area where significant gains can be made – without the risk of overuse injuries – is the weightroom. Weightlifting – particularly high-weight, low-rep programs – not only maintains maximum strength capabilities for players who lifted in the off-season, but can also result in gains for novice lifters. Because the weightlifting movements and workload can be carefully monitored, there is significantly less risk than with plyometrics or agility training. Yet a good weightlifting program can enhance the ability of a player to jump, sprint, defend, gain position, rebound and shoot.

### **Characteristics of an In-Season Weightlifting Program**

Before you consider implementing an in-season weight program, it is important for each player to assess his or her background in weightlifting. For players that have experience in following an advanced weightlifting program – which includes Olympic lifts and other free weight movements – their program can include high-intensity, heavy-weight lifts. For intermediate lifters, it is likely that the lifts they choose will be of lower complexity, but still using heavy weight. For beginners, the focus would be on using a comfortable weight, and working on good technique.

Weightlifting can provide a number of benefits for all players. The most significant benefit is increased strength – providing indirect benefits for jumping ability, speed, establishing position and increased shooting range. Weightlifting can also be used to increase body weight and musculature – particularly important for low-post players. Additionally, the strength gains and body awareness gains from weightlifting can make the athlete more resistant to injury. These benefits, however, do not come with the cost of joint pain and soft-tissue injuries that commonly accompany explosive jumping and plyometric work. It is important to recognize that weightlifting is included to supplement your basketball activities, not compete with them.

Provided on the following pages, are examples of weight training programs that could be used for advanced, intermediate and beginner weightlifters – who are working towards improving their basketball performance. These programs are intended to provide players with guidelines for setting up their own programs in-season. As a rule, lifting volumes will be low, intensity will be high and rest between sets will be high. If you are not comfortable with a certain type of lifting movement, it is recommended that you opt for a lift that is less complicated and more comfortable.

## Advanced Weightlifters

If you have experience in performing Olympic lifts (i.e. cleans, jerks and/or snatches) and you have been instructed by a qualified coach, you would be considered an advanced weightlifter. Your program will take advantage of the fact that Olympic lifts can be used to make you stronger and more explosive.

A sample Advanced week of training could include 2-3 weightlifting days, as follows:

<b>Advanced Weightlifters</b>		
<b>Day 1</b>	<b>Day 2</b>	<b>Day 3</b>
<b>Primary Lifts</b> <ul style="list-style-type: none"> <li>• Power cleans</li> <li>• Bench press</li> <li>• Back squats</li> </ul> 2-3 progressive warm-up sets, then: 3 sets of 3-4 reps at 80-85% of your one repetition maximum	<b>Primary Lifts</b> <ul style="list-style-type: none"> <li>• Push press or jerk press</li> <li>• Back squats</li> </ul> 2-3 progressive warm-up sets, then: 3 sets of 3-4 reps at 80-85% of your one repetition maximum	<b>Primary Lifts</b> <ul style="list-style-type: none"> <li>• Hang cleans</li> <li>• Close-grip bench press</li> </ul> 2-3 progressive warm-up sets, then: 3 sets of 3-4 reps at 80-85% of your one repetition maximum
<b>Secondary Lifts</b> <ul style="list-style-type: none"> <li>• Low-intensity abdominal work (100-300 reps)</li> </ul>	<b>Secondary Lifts</b> <ul style="list-style-type: none"> <li>• Lat pull-down (2-3 sets of 10)</li> <li>• Straight leg deadlift (2-3 sets of 10)</li> <li>• Low intensity abdominal work (100-300 reps)</li> </ul>	<b>Secondary Lifts</b> <ul style="list-style-type: none"> <li>• Low intensity abdominal work (100-300 reps)</li> </ul>

## Intermediate Weightlifters

Intermediate weightlifters may or may not have experience with performing heavy Olympic lifts, but have significant experience performing such activities as back squats and many other heavy, but less complex lifts. Athletes in the Intermediate range can practice Olympic lifts at low to moderate weight (with low reps), but not include them as a major portion of their program.

A sample Intermediate week of training could include 2-3 weightlifting days, as follows:

<b>Intermediate Weightlifters</b>		
<b>Day 1</b>	<b>Day 2</b>	<b>Day 3</b>
<b>Primary Lifts</b> <ul style="list-style-type: none"> <li>• Bench press</li> <li>• Back squats</li> </ul> 2-3 progressive warm-up sets, then: 3 sets of 3-4 reps at 80-85% of your one repetition maximum	<b>Primary Lifts</b> <ul style="list-style-type: none"> <li>• Close-Grip Bench Press</li> <li>• Back Squats</li> </ul> 2-3 progressive warm-up sets, then: 3 sets of 3-4 reps at 80-85% of your one repetition maximum	<b>Primary Lifts</b> <ul style="list-style-type: none"> <li>• Bench press</li> <li>• Back squats</li> </ul> 2-3 progressive warm-up sets, then: 3 sets of 3-4 reps at 80-85% of your one repetition maximum
<b>Secondary Lifts</b> (2-3 sets of 10) <ul style="list-style-type: none"> <li>• Seated overhead press (dumbbells)</li> <li>• Straight leg deadlift</li> <li>• Low-intensity abdominal work (100-300 reps)</li> </ul>	<b>Secondary Lifts</b> (2-3 sets of 10) <ul style="list-style-type: none"> <li>• Lat pull-down</li> <li>• Straight leg deadlift</li> <li>• Low intensity abdominal work (100-300 reps)</li> </ul>	<b>Secondary Lifts</b> (2-3 sets of 10) <ul style="list-style-type: none"> <li>• Seated row</li> <li>• Good-morning</li> <li>• Low intensity abdominal work (100-300 reps)</li> </ul>

## Beginner Weightlifters

Athletes that have not spent a lot of time lifting weights – particularly free weights – would be considered Beginners for this program. Given that you would not have a significant background in weightlifting, the exercises would be simple in nature and the weight lifted would be quite light. The purpose of doing a weightlifting program would be to build general strength and endurance, as well as work on good posture and technique during the lifts.

<b>Beginner Weightlifters</b>		
<b>Day 1</b>	<b>Day 2</b>	<b>Day 3</b>
<b>Primary Lifts</b> <ul style="list-style-type: none"> <li>• Bench press</li> <li>• Back squats</li> </ul> 1-2 progressive warm-up sets, then: 3 sets of 6-10 reps at 50-65% of your one repetition maximum	<b>Primary Lifts</b> <ul style="list-style-type: none"> <li>• Overhead press</li> <li>• Back Squats</li> </ul> 1-2 progressive warm-up sets, then: 3 sets of 6-10 reps at 50-65% of your one repetition maximum	<b>Primary Lifts</b> <ul style="list-style-type: none"> <li>• Bench press</li> <li>• Back squats</li> </ul> 1-2 progressive warm-up sets, then: 3 sets of 6-10 reps at 50-65% of your one repetition maximum
<b>Secondary Lifts</b> (3 sets of 10 at 50-65% of 1RM) <ul style="list-style-type: none"> <li>• Seated overhead press (dumbbells)</li> <li>• Lat-pull downs or seated rows</li> <li>• Low-intensity abdominal work (100-200 reps)</li> </ul>	<b>Secondary Lifts</b> (3 sets of 10 at 50-65% of 1RM) <ul style="list-style-type: none"> <li>• Lat pull-down or seated rows</li> <li>• Incline dumbbell bench press</li> <li>• Low intensity abdominal work (100-200 reps)</li> </ul>	<b>Secondary Lifts</b> (3 sets of 10 at 50-65% of 1RM) <ul style="list-style-type: none"> <li>• Seated overhead press (dumbbells)</li> <li>• Lat-pull downs or seated rows</li> <li>• Low-intensity abdominal work (100-200 reps)</li> </ul>

## General Considerations

Before you begin your weightlifting program – whether you are an Advanced lifter or a Beginner – it is important to consider the following guidelines:

- **Warm-up properly** before every session. This may include a low-intensity continuous activity such as jogging, stationary bike or skipping rope for about 5-10 minutes to increase your core body temperature and increase circulation. Additionally, for each lifting exercise, it is important to perform 2-3 warm-up sets. The first warm-up set may be with a very light weight (i.e. the bar only) for a higher number of reps. The second set would be with a heavier weight for less reps. The idea is to prepare your body – through progressive loading – for heavy lifting.
- **Have a spotter helping** for moderate to heavy lifts. It is always a good idea to lift with at least one other partner so that you have someone around to spot you during your lifts. This is particularly important for lifts such as the bench press, overhead lifts and squatting. Not only do spotters increase safety in the weight room, but they also allow athletes to lift to their maximum abilities, not overly concerned about risk of injury.
- **Always focus on technique.** The load you choose for each exercise should be based on what you can lift with the best possible technique. As soon as your technique breaks down, you know that you are probably lifting beyond your ability. We would rather have you lifting less weight, with good technique, rather than lifting heavy weight with poor technique – which will often lead to injury.