Training Considerations for Athletes in the Jumping Events

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NB: This is a letter that I wrote to one of my former jumpers who is now coaching in college. He asked for some training advice, and below is what I sent. Hopefully this will be helpful to anyone looking for training ideas for jumpers!

Hey buddy, good to hear from you. I will be happy to help however I can.

Have some questions: Is this for a collegiate athlete? High school?

I'm assuming collegiate, but just wanted to make sure.

This training has a lot of "conditioning work", which is fine, however, not really jump / sprint specific. I say that because training for the jumps is first and foremost training for speed and power. These are the 2 most important things to train for. In designing a training plan, the first thing you need to consider are the qualities / demands of the events that you are training for. Pretty simple right? For a jumper (can be different from event to event) you must be fast, you must be powerful, and you must be elastic. So training for these things must take the majority of your training time.

You are correct that the running (100's – 300's) will get an athlete in shape, but not specifically enough for the jumping events. Meaning, doing running like this 3-5 days a week will make you a stronger runner, however, it won't get you to your goal fast enough, and will not transfer over to the event nearly as well as more specific training.

I remember reading Andre Agassi's biography and he talked about a discussion that he had with his new strength coach. He was having trouble staying strong throughout the long games, and wanted to find a way to improve upon his fitness levels:

"How much do you run everyday?"

"5 miles"

"Why?"

"I don't know"

“Have you ever run 5 miles in a match?”

“No”

“How often in a match do you run more than 5 steps in one direction before stopping?”

“Not very”

“Andre, I don’t know anything about tennis, but it seems to me that by the 3rd step, you better be thinking about stopping. The trick is to throttle down, hit, then slam on the breaks, then hustle back. The way I see it, your sport isn’t about running, its about starting and stopping. You need to focus on building the muscles necessary for starting and stopping.”

I think the same can be said for training for the jumps. Look what your sport, or event is really about, and then build your training around that. Speed. Power. Elastic Strength.

Speed training is very specific, and is a learned skill. Just like any other skill, it gets better with practice. It takes time to get better. Therefore, speed training needs to start from the beginning. It is one of, if not THE most important part for a jumper (since power = speed x strength) so it must be the foundation for your training.

Other qualities that must take the focus of your training, need to be power (which is both speed and strength), elastic strength and coordination / technique.

This being said, I would suggest starting out where you do speed work three times a week, and match that up with other qualities that need to take precedence. These would be strength, coordination, elastic strength, and power.

The key to good training is to find out what elements fit together (what characteristics are similar) as well as what elements complement each other (what qualities should be trainined on the other days, to build upon what you did on the day before)

So below I have listed all items that are most specific to the training of the jumps (speed / power). Let's call these the “Meat and Potatoes” parts

Acceleration development (power developer, mimics the start of the approach)

ex. 10m, 20m, 30m, 40m sprints from stand, or blocks, or short run walk in

Approach Development (working on the full approach without jumping)

ex. full approach on runway, full approach on track

Speed Development (working on running at high speeds, for short time, with long rests)

ex. 50m – 120m runs, either flat out, or in a “flying” format

Speed Endurance (working on maintaining technique and coordination through fatigue)

ex. 120m-300m runs, very fast, with long rests. Can also be done in “broken” or “split” form

Olympic Lifts (lifts for power where the goal is to move the weight very fast)

ex. clean, snatch, jerk, from different positions (floor, knee, hang)

Ballistic Lifts (lifts with lighter weight, where you move very fast)

ex. jump squat, split squat jump, speed bench

Plyos (jumps that can be done off of one leg or two, and can be for distance, height, or endurance)

ex. single leg hops, standing triple jump, hurdle hops, bounding, etc.

Throws (throwing a heavier object, trying to throw it very far and fast)

ex. Med ball throws, shot put throws, both linear and rotational

Intense Technique work (mimicking the technique on the runway)

ex. LJ from 10 steps, HJ from 6 steps, running r-l-r-l, PV from 5 steps, etc

These activities (Meat and Potatoes) should be done on the same day. Obviously we will talk about later the proper sequencing, and what to do at what times in the year, but as a general rule, have the meat and potatoes on the same day.

Now, we obviously can't do the meat and potatoes every day. That would cause injury. So, the key for the other days, are to do things that increase stregnth, stamina, and the smaller muscle groups, while at the same time, building you back up for your next day's work out. Power training is very taxing on the nervous system, so you need to do things on the non power training days to help recover, as well as get you stronger. We will call these the “salad” days. Still very necessary, and need to be perscribed correctly, so that you can get the gains / recovery that you need.

“Salad” day activities:

Tempo Running (repitition runs at a certain %, with an incomplete recovery)

ex. 6 x 200m @ 70% w/ 2' rest, 5 x 150m @ 80% w/ 4' rest, 10 x 100m, etc

Circuit Training (body weight exercises done for a certain time, then switching to another, etc)

Easy Technique training (very low impact technical training)

ex. box jumps for HJ, walking triple jump drills, easy pole runs

Med Ball circuits

Non-impact plyos (yes these exist)

ex. hops and squat jumps on HJ mat, for a certain time

Hurdle drills

ex. hurdle walk overs, skips,

Grass strides (like tempo running, but can be done barefoot)

ex. 10 time football field, with walk back recovery

These activities both can make you a stronger and more "condtioned" jumper, and at the same time help you recover faster. In doing this, your non-power days (salad days) help to build you up even more, but without risking injury.

How to Schedule it all out

At any point in the training year (whether its the 2nd week of practice or the week of the US Champs) the training plan should consit of alternating power / support training days. This means that power / speed training should start on the first week of practice, and continue through to the end of the season.

Typically the training year is divided into 4 or 5 segements, and although the intensities and volumes change throughout the year, the themes stay the same. That being said, in the early stages of the training, intensities will be lower, with volumes higher, but the themes will stay the same. For example, acceleration development should be trained year round, starting from the first day of practice. In the early stages it might look like 4 x 10m, and 4 x 20m in flats with a walk back recovery, but it is still ensuring that acceleration is being taught and trained from the beginning.

A good structure would include 3 power days and 2-3 general days in a 7 day week. In the most basic of forms, M-W-F would be speed / power days, and T-Th would be

general days. This would again change in training a multi, but we can talk about that later.

The training phases can be divided up into as follows:

General Preperation Phase- 4-6 weeks, focus is on teaching and on getting the body ready for more intense training

Special Preperation Phase – 8-10 weeks, foucs is on maximising gains in both the weight room and on the track. Technical training gets an emphasis here

Pre-Competitive Phase- 4-6 weeks- focus in more technical specific, getting the body and mind ready for the competitive season

Competitive Phase- 15-25 weeks (depends on how good you are!)- focus is on performing on a higher level than the previous year

In all of these phases, below is a general plan that works nicely for optimal training

Monday- Acceleration development, jumping activities (start out with plyos, then progress into short appraoch jumps) weight training (olympics and static lifts) throws (start with med ball, progress to shot put)

Tuesday-easy non-impact technique, tempo running, circuits, long cool downs

Wednesday- speed development, jumping activities, weight training

Thursday- easy non-impact technique, tempo running, circuits, long cool downs

Friday- Acceleration development, jumping activities (start out with plyos, then progress into short appraoch jumps) weight training (olympics and static lifts) throws (start with med ball, progress to shot put)

Saturday- Higher intensity tempo running, jumping activities

Sunday- rest

Obviously WHAT you do will change each week, but the format should stay the same.

Research and experience will show that technique and speed should be done FIRST in the workout, followed by any sort of strength training. This will insure that anything that requires a big neuromuslcar demand will be done when you are fresh.

Ok buddy, I hope this helps some. Do let me know if you have any questions at all!

Appendix

Running Intensities Rest Suggestions

Acceleration Development (should be run at close to 100%)

1' per 10m (ex 3' rest for 30m)

Speed Development (top speed areas should be run at 100%)

1' per 10m

Speed Endurance (90% - 95%)

IF 40m-60m, then 1' per 10m

IF over 60m, then 45” per 10m, but runs will be closer to the 90% intensity

Extensive Tempo

60%-70%, then 2' rest

70%-75%, then 3' rest

75%-80% then 4' rest

Intensive Tempo

80%-85% then 5' rest

85%-90%, then 6' rest