

1995

Jumper's knee associated with plyometric depth jumping: A 10 case retrospective analysis.

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Purpose: Plyometric depth jump (PDJ) training has gained popularity over the last ten years in the lay literature and in athletic training. Published literature had reported increases in vertical jumping ability, however few sources have indentified injury patterns associated with plyometric depth jumping. **Method:** Review of ten cases of elite athletes revealed a mean time of onset of jumper's knee symptoms to be 3.1 weeks after initiation of PDJ. This population included 6 women, 4 men, with an age range of 18-33 years and a mean age of 26.4 years. The height of the box used for the PDJ ranged from 36 inches (91 cm) to 54 inches (137 cm). **Results:** Quantification of the jumper's knee classification included: phase I – 2 cases; phase II – 1 case; phase III – 6 cases; phase IV – 1 case. 60 percent lost their athletic career as a direct result of the severity of the jumper's knee. **Conclusion:** It is the opinion of the authors that while there is documented increase in vertical jump after PDJ training, the athlete's training must be monitored for the height of the box used in jump; the volume; frequency; and duration of PDJ training and for onset of jumper's knee symptoms. The authors suggest using a box height of 20 inches (51 cm) for 3 sets of 10 reps for no more than 4 weeks in a training cycle and no more than 8 weeks in one year.

Poster presentation
1995 ACBSP Chiropractic Sports Sciences Symposium
July 1995, Maui, Hawaii