

Table B: Impact Loading (Adapted from Beck et al, 2017)
 4-7 days a week of x 50 contacts a day
 Consider adjusting frequency of sessions when the athlete returns to running

Risk of Low Trauma Fracture Classification (NB: Z score value favourable in younger athletes/dancers)		
Low Risk	Moderate Risk	High Risk
<ul style="list-style-type: none"> - Normal BMD T-score >1.0 SD - No clinical risk factors - Aim to maximise bone mass/strength and improve muscle strength - Combine with resistance training, multi-directional sporting activities and balance exercises 	<ul style="list-style-type: none"> - Low BMD T score - 1.0 - -2.5 SD - Clinical risk of fractures - Aim to preserve and improve bone mass and strength - Improve muscle strength, power and balance - Combine with resistance training, multi-directional sporting activities and balance exercises 	<ul style="list-style-type: none"> - Osteoporosis, T score < 2.5 SD - Previous fractures and multiple risk factors - Moderate impact activities - Aim to preserve and improve bone density and strength - Improve muscle strength, power and balance - Combine with supervised high intensity resistance training
Level Progress onto next level when completed x 2 sessions symptom free	Phase 1 Appropriate for all T-score levels (Moderate Impact)	Phase 2 Low and moderate risk factor groups (High Impact)
1	Heel drops 5 sets x 10 reps (1-min recovery)	Hopping on spot 5 sets x 10 reps (1-minute recovery)
2	Skipping rope 3 sets x 20 reps (1-minute recovery)	Side jumps, one leg onto the other 5 sets x 10 reps (1-minute recovery)
3	Side steps 5 sets x 10 reps (1-minute recovery)	Hopping side to side 5 sets x 10 reps (1-minute recovery)
4	Jogging on spot 3 sets x 20 reps (1-minute recovery)	Hopping forward & back 5 sets x 10 reps (1-minute recovery)
5	Jumping on spot 5 x sets x 10 reps (1-minute recovery)	Multi directional hopping 5 sets x 10 reps (1-minute recovery)
6	Forward/backward jumping 5 x sets x 10 reps (1-minute recovery)	Land from small step onto two legs 5 sets x 10 reps (1-minute recovery)
7	Side to side jumping 5 x sets x 10 reps (1-minute recovery)	Land from small step onto one leg 5 sets x 10 reps (1-minute recovery)
8	Multidirectional jumping 5 x sets x 10 reps (1-minute recovery)	Split jumps off step 5 sets x 10 reps (1-minute recovery)
9	Step ups 5 sets of 10 reps (1-minute recovery)	Sideways single leg land off step 5 sets x 10 reps (1-minute recovery)
	<i>Progress to phase 2 if appropriate - if high risk, start sports specific impact activities</i>	<i>Progress to sports specific impact activities as required e.g. running drills, shuttle running, multi directional runs and return to play activities</i>