

SPORTS CONCUSSION: GYMNASTICS-SPECIFIC RETURN-TO-SPORT STRATEGY



Return-to-Sport strategy starts after evaluation from a physician. Early return to aerobic and strengthening activities can be considered per symptom parameters* and physician guidance. A minimum 24 hours should separate each step within this Return-to-Sport strategy

STAGE	AIM	ACTIVITY	GOAL OF EACH STEP
1	Early aerobic and strength activities	<ul style="list-style-type: none"> All activities progressed per symptom parameters* Light aerobic activity progressed to moderate intensity activity: Stationary bike, walking, light jogging, sprinting Strength & flexibility activity: Body weight training progressed to higher intensity gymnastics-specific strengthening Low impact landing drills 	<ul style="list-style-type: none"> Gradual reintroduction of work/school activities Need to achieve academic return, symptom resolution, and physician clearance prior to starting Stage 2**
2	Return to early sport specific training: Inversion	<ul style="list-style-type: none"> Start basic, non-dynamic inversion (ie. Handstands) Discipline-specific progression: <ul style="list-style-type: none"> Ar – all events - basic swings/tap swings/cast handstands, leaps, jumps & dance on ground/low heights, sprints R – basic dance, no rotation TT – non-impact, land-based drills, straight bounces Ac/G – dance choreography only P – running, jump drills without obstacles 	<ul style="list-style-type: none"> Increase heart rate Start non-dynamic basic skills Limited inversion No twisting or flipping
3	Progress sport specific training: Flipping	<ul style="list-style-type: none"> As above with increased intensity Discipline-specific progression: <ul style="list-style-type: none"> Ar – FX-basic tumbling/B-series on floor/UB&HB-giants/R-static strength holds (ie. L sit, planche), inlocates, dislocates/V – timers R – advance dance, rotation, basic throws (Indiv./No Group) Tr – straight bounces, level 10 single flipping skills DM – soft landing, straight bounces, single rotation on & off Tu – soft landing, basic HS, RH, RH, BHS, combining two skills Ac/G – basic balance/lift drills/limit # of lifts, basic tumbling P – low height hurdles, climbs, flipping drills 	<ul style="list-style-type: none"> Add full inversion Advance basic skills Limited flipping No twisting
4	Progress sport specific training: Twisting	<ul style="list-style-type: none"> As above with increased complexity Discipline-specific progression: <ul style="list-style-type: none"> Ar – add twisting, complex flipping, release timers, high beam R – add full throws, rotation, sequences (Indiv./No Group) Tr – add double salto skills and single twisting skills DM – soft landings, single mount flipping skills, double landing skills, single twist on or off Tu – soft landing, combining skills down the floor, double salto, complex flipping, single twist Ac/G – progress from basic to advance balance, lift skills, twisting P – high height hurdles, climbs, flip & twist without obstacles 	<ul style="list-style-type: none"> Add complex flipping Start basic twisting
5	Progress sport specific training: Advanced Skills <i>* Physician clearance required to move to step 6</i>	<ul style="list-style-type: none"> As above with increased complexity Discipline-specific progression: <ul style="list-style-type: none"> Ar – complex skills, higher risk skills (i.e. release skills) R – continue full skills/sequences, integrate with Group Tr – working rotation and twisting, progress to loop skills 1-5/5-10 together with limited turns DM – hard landings, progress to mounts and dismounts in limited # Tu – combo of inverted skills and one twisting skill in combination, complex flip/twist skills, basic sequences Ac/G – add full tumbling, lift, balance skills, progress to full routines with choreography P – add flip/twist with obstacles 	<ul style="list-style-type: none"> Combine complex inversion and rotation Improve endurance and strength
6	Return to full training	<ul style="list-style-type: none"> All disciplines – full clearance Focus on slow increase in volume, to build stamina & strength Progress through the following steps: <ol style="list-style-type: none"> Single skill elements Combined elements/Sequences Routine parts Full routines 	<ul style="list-style-type: none"> Final full reintegration TT if symptoms reoccur, go back to step 3

Ar = Artistic; R = Rhythmic; TT = Tumbling & Trampoline; Ac/G = Acro/Group; P = Parkour; FX = Floor Exercise; B = Beam; PH = Pommel Horse; PB = Parallel Bars; UB = Uneven Bars; R = Rings; HB = High Bar; Indv = Individual; Tr = Trampoline; DM = Double Mini; Tu = Tumbling



*** Stage 1 activities** can begin 24 hours after a concussion event, while monitoring for symptom exacerbation. Mild and brief exacerbation of symptoms associated with activity, is defined as an increase of no more than 2 points, on a 0-10 point scale, for less than an hour, when compared to the baseline value reported prior to the start of the physical activity. If more than a mild exacerbation of symptoms occurs (more than 2 points for more than an hour), the gymnast should stop and wait till the following day to resume activity.

**** A treating physician** may consider progressing a gymnast through Stage 2 and Stage 3 during the completion of RTL, if clinically appropriate.

Stage 2 or Beyond: If the gymnast experiences new or recurring symptom, the gymnast should pause the progression, be reassessed by their treating physician, wait for symptoms to resolve, then restart at the previous symptom-free stage as directed by the treating physician.