

Figure 4: Chaos-control Continuum in Reaptation Process

HIGH CONTROL		MODERATE CONTROL		CONTROL>CHAOS		MODERATE CHAOS		HIGH CHAOS		
SESSIONS	<0.35 GAME LOAD**	SESSIONS	<0.35-0.45 GAME LOAD**	SESSIONS	<0.40-0.60 GAME LOAD**	SESSIONS	*0.55-0.70 GAME LOAD**	SESSIONS	>0.70 GAME LOAD**	
TYPE	RETURN TO RUNNING PHASE 1 (RTR1)	TYPE	RETURN TO RUNNING: CONTROLLED CHANGE OF DIRECTION PHASE 2 (RTR2)	TYPE	INTENSIVE EXTENSIVE	TYPE	INTENSIVE EXTENSIVE	TYPE	INTENSIVE EXTENSIVE	
CONDITIONING EMPHASIS	THRESHOLD ENDURANCE (80-85% MAX ^(M)) INTENSIVE ENDURANCE (70-80% MAX ^(M))	CONDITIONING EMPHASIS	THRESHOLD ENDURANCE (80-85% MAX ^(M)) INTENSIVE ENDURANCE (70-80% MAX ^(M))	CONDITIONING EMPHASIS	EXTENSIVE TEMPO LEVEL 1 (**55-70% MS) VO ² MAX DEVELOPMENT (>85% MAX ^(M)) THRESHOLD ENDURANCE (80-85% MAX ^(M)) INTENSIVE ENDURANCE (70-80% MAX ^(M))	CONDITIONING EMPHASIS	EXTENSIVE TEMPO LEVEL 2 (**65-85% MS) EXTENSIVE TEMPO LEVEL 1 (**55-65% MS) VO ² MAX DEVELOPMENT (>85% MAX ^(M)) THRESHOLD ENDURANCE (80-85% MAX ^(M)) INTENSIVE ENDURANCE (70-80% MAX ^(M))	CONDITIONING EMPHASIS	SPEED (>85% MS) EXTENSIVE TEMPO LEVEL 2 (**65-75% MS) VO ² MAX DEVELOPMENT (>85% MAX ^(M)) THRESHOLD ENDURANCE (80-85% MAX ^(M)) INTENSIVE ENDURANCE (70-80% MAX ^(M))	
DESCRIPTION	LINEAR RUNNING (> FROM ALTER-G - 90% BW) LOW MAGNITUDE ACC/DEC LOW VOLUME EXPLOSIVE DISTANCE LOW MUSCULOSKELETAL IMPACT FORCES END OF STAGE INTRODUCTION TO HSR (INJURY SPECIFIC) EXAMPLES: 3X6, 4X6 (3-4X3MINS) 3X8, 4X8 (3-4X4MINS) (1-2MINS PR)	DESCRIPTION	INTRODUCE COD WITH/WITHOUT BALL (45-180° TURNING) >LINEAR RUNNING SPEEDS (FARTLEK) >MUSCULOSKELETAL IMPACT FORCES/JOINT DEMANDS INTRO SHORT-RANGE TECHNICAL E.G. PASSING EXAMPLE: 3-5X3-4MINS (1-2MINS PR)	DESCRIPTION	COD WITH*/WITHOUT BALL (ALL TURNS) RUNNING SPEEDS (**60-70% MS - HSR) (FARTLEK) LOW VOLUME/INTENSITY P+M/POP >MUSCULOSKELETAL IMPACT FORCES/JOINT DEMANDS >ACC/DEC PREPARATION PROGRESSION OF TECHNICAL SKILLS INTENSIVE: 4-6X1-2MINS (1-2MINS PR) EXTENSIVE: 4-6X4-5MINS (2-3MINS PR) TEMPO/AEROBIC POWER INTERVAL RUNNING (17:13/15:15S) <small>**WITH BALL WILL INCREASE HEART RATE RESPONSE, AND PLAYER MOTIVATION: TO PERFORM DRILLS</small>	DESCRIPTION	>RUNNING SPEEDS (>75% MS) >HSR ACCUMULATED >SPRINT EXPOSURE POSITIONAL P+M/POP (INCLUDING TECHNICAL SKILLS) >ACC/DEC DEMANDS (POSITIONAL) >MUSCULOSKELETAL IMPACT/JOINT DEMANDS >VOLUME/INTENSITY SPEED-5-10S (1:5-1:10) SPEED ENDURANCE: PRODUCTION/MAINTENANCE INTENSIVE: 20-45S/1-3MIN (1-2MINS PR) EXTENSIVE: 4-8MINS (2-3MINS PR)	DESCRIPTION	>RUNNING SPEEDS (>90% MS) >HSR/SPR ACCUMULATED RTT POSITIONAL SPECIFIC DEMANDS ACC/DEC DEMANDS (POSITIONAL) >MUSCULOSKELETAL IMPACT/JOINT DEMANDS >MATCH-DAY TYPE PREPARATION SPECIFIC P+M/POP (POSITIONAL - TECHNICAL SKILLS) SPEED-5-10S (1:5-1:10) SPEED ENDURANCE: PRODUCTION/MAINTENANCE INTENSIVE: 20-45S/1-3MIN (1-2MINS PR) EXTENSIVE: 4-8MINS (2-3MINS PR)	
LOAD EMPHASIS (INJURY SPECIFIC)	TD	<EXPD/ <HSR	TD	>EXPD/ <HSR	TD	>EXPD/ >HSR (SPR)	TD	<EXPD/ >HSR (SPR)	TD	<EXPD/ >HSR (SPR)
	<ACC	<DEC	>ACC	>DEC	>ACC	>DEC	>ACC	>DEC	<ACC	<DEC
NO. OF SESSIONS	2-4	NO. OF SESSIONS	3-4	NO. OF SESSIONS	3-4	NO. OF SESSIONS	3-5 (DEPENDANT UPON TRAINING METHOD)	NO. OF SESSIONS	3-5 (DEPENDANT UPON TRAINING METHOD)	

Return to sport framework - the control-chaos continuum. Control=high level of structure on behaviour/actions/movement, that is, controlled situation. Chaos=unpredictable behaviour/actions/movement, as to appear random/reactive, that is, chaotic situation. Green represents high control (low intensity) moving towards high chaos (high intensity). Model can be adjusted according to specific injury diagnosis, estimated tissue healing times and expected return to training. Acc/Dec Magnitude =rate of change in velocity, for example, 3 ms⁻². ** Game load adjustable dependent on injury type/severity. ACC, accelerations; BW, bodyweight; COD, change of direction; DEC, decelerations; Exp-D, explosive distance (accelerating/decelerating from 2 to 4 ms⁻¹ <1 s); HSR, high-speed running (>5.5 ms⁻¹); MS, maximal speed; MAXHR, maximal heart rate; PR, passive recovery; SPR, sprint distance (>7 ms⁻¹); TD, total distance.