

Table S2 Sample training sessions: Week 27 to 52

Sample training sessions for the training weeks 27 – 52 are provided in the table below.

The intervention group trained on 2 days per week. They self-selected the training day (Monday to Friday) but were encouraged to have at least 24 hours of rest between training sessions. Every training week was structured around a particular exercise - the main emphasis of the week. Nevertheless, training sessions differed daily. The training was done in groups (maximum 10 participants) under supervision of a certified CrossFit coach (CrossFit Level 1 and CrossFit Level 2). Although everyone followed the same program, the coach scaled volume, intensity, and movements according to the participants individual, physical condition.

Each training session lasted 60 minutes. The training session started with 5 - 10 minutes of introduction and warm up. Mobility was done afterwards for another 5 – 10 minutes, including the areas that are involved in the skill and strength part of the session. The skill and strength part lasted 5 – 30 minutes. After the skill and strength part, a high-intensity workout was performed for 5 – 30 minutes. Every session ended with 5 – 10 minutes of mobility and stretching.

Further explanations:

- E(x)MOM (y)= Every minute on the minute. Complete the prescribed repetitions per exercise in the given intervals and rest during the remaining time. When the given intervals differ from 1 minute, the x determines the length of intervals (e.g., E3MOM = every 3 minutes). When different movements are prescribed for the intervals, the sequence is written as 1) exercise 1, 2) exercise 2, etc. (y) determines the overall length.
- AMRAP = As many repetitions as possible are done in the given time span.
- For time = The prescribed workout is done as fast as possible.
- Tabata = 8 consecutive sets of 20sec work followed by 10sec rest. When different movements are prescribed for the intervals, the sequence is written as 1) exercise 1, 2) exercise 2, etc..
- (x)-(x)-(x)-(x) repetitions = Complete x repetitions of every exercise as fast as possible. 21 – 15 – 9 Pull ups, Thruster = Complete 21 pull ups, 21 thruster, 15 pull ups, 15 thruster, 9 pull ups and 9 thruster as fast as possible.
- Technique = Technique training of complex movements. Intensity was kept low.

	Main emphasis	Warm-up	Mobility	Skill and strength	“Workout of the day”	Cool-down
Week 27	Dumbbell clean and press	3 Rounds 10 Good morning 10 Squat 10 Slow mountain climber 10 Dumbbell row	Ankle, hip, wrist	E3MOM 21 3-5 Rounds dumbbell complex 1 Dumbbell power clean + 2 Dumbbell front rack squat + 3 Dumbbell push press	10min AMRAP 2 Slamball thruster 2 Sit up 4 Slamball thruster 4 Sit up <i>add 2 repetitions each round</i>	Mobility / stretching

Week 28	Rowing ergometer	20m Walking lunge 15 Sit up 20m Jog 15 Squat 20m Walking lunge 15 Push up 20m Jog 15 Good morning	Ankle, shoulder, thoracic spine	(1) E4MOM 20 20cal Row + 20 Swimmer + 20 Sit up (2) Tabata Wall angel Hollow hold	9min AMRAP 20 High knee 50m Run 10 Burpee 50m Run 15 Jumping jack	Mobility / stretching
Week 29	Pull up	5 rounds Slamball complex 5 Deadlift 5 SlamBall clean 5 Front squat 5 Press 5 Slamball	Shoulder, thoracic spine	(1) EMOM 21 1) 5-10 Pull Up / jumping pull up / Australian pull up 2) 5-10 Push up 3) 5-10 Split squat (2) Tabata 1) Side plank pulses right 2) Side plank pulses left	For time 10 Slamball thruster 15 Burpee 20 Slamball thruster 15 Burpee 30 Slamball thruster 15 Burpee 40 Slamball thruster 15 Burpee 50 Slamball thruster 15 Burpee 60 Slamball thruster 15 Burpee Time cap: 18 minutes	Mobility / stretching
Week 30	Dumbbell snatch	5min Loaded carries with dumbbells (farmers, waiters, suitcase, etc.)	Hip, shoulder	(1) Dumbbell snatch technique Dumbbell deadlift Dumbbell pull Dumbbell high pull Dumbbell muscle snatch Dumbbell snatch (2) Tabata 1) Seated leg lift 2) Swimmer	EMOM 10 5 Burpee + 20 Single under <i>then</i> 50 goblet Squats	Mobility / stretching

Week 31	Shoulder press	2 rounds 10 Push up 10 Bird dog 10 Push up 10 Inchworm	Hip, shoulder, thoracic spine	(1) Barbell shoulder press technique (2) 5 supersets 8 Barbell press 8 Scapular pull up / band pull apart (3) Tabata 1) Side plank pulse right 2) Side plank pulse left	7min AMRAP Burpee	Mobility / stretching
Week 32	Squat	10 World's greatest stretch 10 Air squat 10 Push up 10 Knee hug	Hip, ankle	(1) DB Goblet squat technique (2) EMOM 18 1) 10 DB Front hold squat 2) 10 Australian pull up 3) 30sek Plank	For time 10 Burpee 50m Run 20 Sit up 50m Run 30 Lunge 50m Run 40 Air squat 50m Run	Mobility / stretching
Week 33	Snatch	3-5 rounds Slamball complex 5 Deadlift 5 Slamball clean 5 Front squat 5 Slamball 5 Push up	Ankle, hip, shoulder	(1) Snatch technique Snatch grip deadlift Snatch grip high pull Snatch grip press behind the neck Overhead squat Drop snatch Snatch from hip height (2) Tabata 1) Side plank pulse right 2) Side plank pulse left	3 Rounds for max repetitions 1 Min Wall ball shot 1 Min Slamball 1 Min Box jump 1 Min Push up 1 Min Max cal row 1Min Rest	Mobility / stretching
Week 34	Pull ups	3 Round 5 Scapular Pull up 5 Scapular Push up 10 Overhead squat	Shoulder	(1) EMOM20 (30sec work/30sec rest) 1) Jumping pull up 2) Slamball thruster 3) TRX row 4) Barbell thruster (2) Tabata 1) Hollow hold 2) Superman	12min AMRAP 2 Lunge 2 Russian twist (2-count) 4 Lunge 4 Russian twist (2-count) *add 2 repetitions each round	Mobility / stretching

Week 35	Snatch	2 rounds 10 Push Ups 10 Kettlebell Deadlift 15m Suitcase Carry 10 Kettlebell Front hold lunge 15m Front hold Carry 10 Kettlebell Press 15m Overhead carry	Hip, shoulder	(1) Snatch technique Muscle Snatch Overhead squat Behind neck snatch grip press Behind neck snatch grip sots press Drop snatch (2) Tabata 1) Seated leg lift 2) Tuck hold	For time 21-15-9 One arm dumbbell overhead squat Burpee box jump over	Mobility / stretching
Week 36	Deadlift	200m run 8 Push up 16 Squat 22 Dead bug 16 Squat 8 Push up 200m run	Ankle, hip, shoulder	(1) Deadlift 5 RM (2) Sumo deadlift high pull 5 RM	For time 3-9-15-21-15-9-3 Deadlift (Rx 93/ 66 kg) Box jump (24/20 inch)	Mobility / stretching
Week 37	Russian Kettlebell Swing	3 Rounds 10 Deadlift 10 Row 10 Lunge 10 Goblet squat 10 Push up	Hip	(1) Kettlebell swing technique (2) Tabata 1) Side plank left 2) Side plank right	For time 10-9-8-7-6-5-4-3-2-1 Burpee box jump Kettlebell swing	Mobility / stretching
Week 38	Overhead stability	2 Rounds (each side) 1 Turkish get up 5 Windmill 5 Kneeling one-arm press 10 Row 10 Overhead lunge	Hip, shoulder, thoracic spine	E3MOM27 5-10 Scapula pull up + 5 Overhead squat 2sec:2sec:2sec:2sec (down: hold: up: hold)	10min AMRAP 10 Kettlebell high pull 5 Burpee	Mobility / stretching
Week 39	Rowing erg	2 Rounds 5 Swimmer 10 Wall angel 15 Sit up 20 Air squat	Hip, shoulder, thoracic spine	(1) EMOM 24 1) 7cal Row 2) 15 Sit up 3) 10 Thruster 4) 10 Ring row (2) Tabata Hollow hold	For time 20cal Row <i>then</i> 3 Rounds 20 Deadlift 30 Box jump	Mobility / stretching

Week 40	Dumbbell Snatch	3 Rounds (with kettlebell) 10 Deadlift 10 Goblet squat 10 Swing 1 Turkish get up each side	Hip, shoulder, thoracic spine	(1) Dumbbell snatch technique (2) Hanging knee raises technique	20min AMRAP 8 Hanging knee raise 10 Dumbbell snatch 14ca. Row	Mobility / stretching
Week 41	Pull up, Thruster	2 Rounds 10 Snatch grip deadlift 10 Snatch grip high pull 10 Snatch grip press 10 Overhead lunge 10 Overhead squats	Ankle, hip, shoulder, wrist	(1) Muscle clean + push press technique (2) E2MOM 16 Complex 1 Muscle clean, 2 front squat, 3 push press (3) Tabata Sit up	"FRAN" 21-15-9 PullUps Thruster	Mobility / stretching
Week 42	Deadlift	5 Rounds 10 Wall Facing quat 10 Wallball shot	Hip, upper back	(1) E3MOM 24 5 Deadlift (increase weight each round) 10 Ring row (2) Tabata Hollow hold	For time 21-15-9 Deadlift 70% of 5 RM Dumbbell thruster	Mobility / stretching
Week 43	Back Squat	5min Loaded carries with dumbbells (farmers, waiters, suitcase, etc.) 3 Rounds 1 Turkish get up (each side; 10sec up, 10sec down) 10 Slow wall facing squat	Ankle, hip	(1) Back squat technique (2) E3MOM 21 5 Back squat + 10 dumbbell row	For time 5 Rounds 10 Deadlift 10 Burpee	Mobility / stretching
Week 44	Overhead press	3 Rounds 200m Run 10 Burpee 15m Inch worm	Shoulder	Overhead press Build up to 5 RM	For time 5 Rounds 10 Shoulder to overhead (100% of strict press 5RM) 10 Toes to bar / knees to elbow	Mobility / stretching
Week 45	Pull up	3 Rounds 10 Walk out 10 Sit up 10 Burpee	Shoulder	(1) EMOM 10 3 Pull up (1) Tabata 1) Hang from bar in hollow position 2) Hang from bar in arched position	AMRAP 20 20cal bike 15 Push up 10 Dumbbell snatch 5 Sit up	Mobility / stretching

Week 46	Front squat	3 Rounds Kettlebell complex 10 Deadlift 10 Goblet squat 10 Swing	Ankle, hip, shoulder, wrist	E2MOM 18 5 Paused front squat (3sec) + 10 ring row	AMRAP 20 15 Box jump 12 Shoulder to overhead 9 Toes to bar	Mobility / stretching
Week 47	Handstand	3 Rounds 10 Walkout 8 Sit up 6 Lunge 4 Hollow rock 2 burpee	Shoulder, thoracic spine	Handstand technique	For time 100 Squat 80 Lunge 60 Jumping squat 40 Jumping lunge 20 Pistol squat	Mobility / stretching
Week 48	Rowing ergometer	3 Rounds barbell complex 15 Deadlift 15 Row 10 Press 15 Squat	Shoulder, hip	EMOM 20 1) 10 Shoulder press 2) 15 Kettlebell swing 3) 15 Sit up 4) 15 Barbell squat 5) 30sec Single under	For Time 500m Row <i>Rest 1min</i> 500m Row <i>Rest 1min</i> 500m Row	Mobility / stretching
Week 49	Back squat	3 Rounds 10 Air squat 10 Inch worm 10 Russian twist	Ankle, hip	E3MOM 15 10 Back squat	For Time 60cal Row 40 Wallball shot 100 Single under	Mobility / stretching
Week 50	Push press, push jerk	3 Rounds 10 Dumbbell deadlift 10 Dumbbell row 10 Dumbbell press 20m Dumbbell overhead carry	Shoulder, thoracic spine, wrist	(1) Push press, push jerk technique (2) E2MOM 14 3 Push Press (hold overhead position for 5sec)	For time 1000m Row 50 Thruster 50 Kettlebell Swing	Mobility / stretching
Week 51	Thruster	2 Rounds 10 Clean grip deadlift 10 Clean grip highpull 10 Clean grip press 10 Front rack lunge 10 Front squat	Shoulder, hip	E2MOM 20 5 Thruster (hold bottom position 3sec)	AMRAP 20 250m Row 10 Thruster 10 Sit up 10 KB Swing	Mobility / stretching
Week 52	Double under	2 Rounds 15cal Row 15 Jumping jack 5 Inch worms	Ankle, wrist	Double under technique	For Time 100-80-60-40-20 Air squat Mountain climber Double under <i>every 2min 5 burpee</i>	Mobility / stretching