FIBA
We Are Basketball

PHYSICAL TRAINING, NUTRITION AND SLEEP DURING SELF-QUARANTINE

FOR BASKETBALL REFEREES

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PHYSICAL TRAINING, NUTRITION AND SLEEP DURING SELF-QUARANTINE

INTRODUCTION

The purpose of this guide is to assist all level basketball referees with their physical training during the COVID-19 quarantine period or during any expectational circumstances that restrict normal activities.

This guide is a supplement to the 2019 FIBA Basketball Referees Physical Training Manual, where you can also find other topics related to the training that can be used during the quarantine as well.

If you have any further questions, please do not hesitate to contact us as we will be at your disposal.

Enjoy the training!

FIBA Referees Fitness Team

PHYSICAL TRAINING

- **Regular physical activity** is good for boosting your mood and your immune system.
- **Take short active breaks** during the day to reduce sedentary behaviour while at home. For instance, if you have a call, stand or walk around your home while you speak. Consider interrupting sitting and reclining time every 30'.
- **Avoid overly demanding training sessions** (e.g., CrossFit-like-sessions). If they are too intense or too long your defences can be lowered, thus, increasing the risk of infection:
  - If you are not fit and not familiar with the high-intensity training (HIIT), the training intensity should not exceed 80% of your maximal heart rate.
  - Maximum session duration should be 60'.
- **Divide your training session over the day**. It is preferable to do six 10-minute bouts of physical activity rather than one long bout of 60'.
- To preserve your muscle mass during the self-quarantine, **a minimal but frequent dose of resistance exercise** is the best option. Cardio-based bodyweight exercises are a good option.
  - Do not use maximum loads.
  - Avoid performing exercises until exhaustion.

If you have or have had a fever, you must refrain from any physical activity for a minimum of 14 days after the fever has subsided. Chest pain, discomfort during exercise, sudden changes in the heart rate require immediate cessation of activity and medical advice.

GENERAL RULES HOW TO BUILD YOUR CIRCUIT TRAINING WORKOUT ROUTINES WITH CARDIO-BASED BODYWEIGHT EXERCISE

- **Exercise order**. It is the key to allow opposing muscle groups to alternate between rest and work in consecutive exercise stations. For example, alternating between upper and lower body exercises. If a particular exercise is significantly intense (usually dynamic lower body or whole-body exercises), the following exercise is intended to slightly decrease the heart rate. For example, planking exercises or crunches may follow a jumping squats station.
- **Number of exercises**. There is no ideal number, although the original circuit training protocols required 9-12 exercise stations. However, it is important that all muscles are used at an appropriate intensity during the training session.
- **Individual exercise bout time**. Generally, the longer the duration, the lower the intensity achieved. To maximize the metabolic impact of exercise, the effort time should allow for proper execution of at least 15-20 repetitions. The effort duration of 30 seconds makes it easier for most participants to reach and maintain the appropriate intensity during that time. During the movement execution maintain a fast pace in the concentric phase (overcoming gravity or load) but carefully control the eccentric phase (resisting gravity or load), thus increasing the metabolic impact.
- **Recovery between exercise's bouts**. Recovery periods should be short, providing incomplete breaks; ≤30 seconds of rest increase the metabolic impact. If you are aiming at maximum time efficiency, it is recommended to minimize the rest time (≤15 seconds).
- **Session time**. The training session should last at least 20 minutes. This may require multiple repetitions (or rounds) of a multi-station exercise circuit, usually 2-4 rounds.
- **Exercise selection**.
    - Include variety in terms of type, intensity and duration of exercises, rather than training with only one form of exercise (such as burpees). Use technically simple, low-demand neuromuscular exercises if you are beginners or you are untrained.
    - Use large muscle groups to create adequate resistance and aerobic intensity, for example, using complex or whole-body exercises.
    - Be safe and appropriate for participants in the training space provided.
    - Allow easy transition to accommodate minimized rest time.

PROPOSALS FOR CIRCUIT TRAINING WORKOUT ROUTINES WITH CARDIO-BASED BODYWEIGHT EXERCISE

The effort time is the same and everyone should perform as many repetitions as possible with the proper technique, regardless of the practitioner's profile, but the recovery time varies.

Parameters	Beginner	Intermediate	Advanced
Frequency (days/week)	2-3	3-4	5
External load			
Effort time	30″	30″	30″
Recovery time	45″-60″	20″-30″	10″-15″
Session time	20-30′	20-35′	20-35′
Repetitions	Maximal[a]	Maximal[a]	Maximal[a]
Internal load			
% of HRmax[b]	65%-80%	~ 80%	≥ 80%
RPE (score)	6-7	~7	> 7

[a]Maximal number of repetitions during effort time.

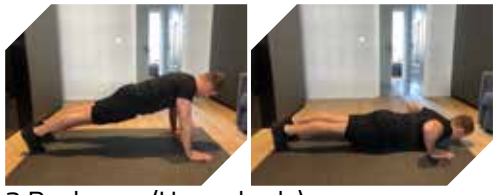
[b]Percentage of your maximum heart rate.

RPE, rating of perceived exertion scale (0–10).

Circuit example 1
2 rounds (12 exercises + 12 exercises)
Exercise time: 30" / Recovery between exercises: 45" / Recovery between rounds: 60"
Total effort time: 12' / Total recovery time: 17'30"
Total session time: 29'30"


1 Jumping Jacks (Whole body)


2 Wall sit (Lower body)


3 Push-ups (Upper body)


4 Bicycle crunches (Core)

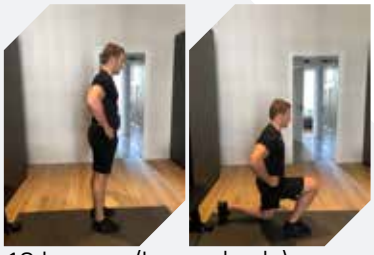

5 Mountain climbers (Whole body)


6 Hip thrusts (Lower body)


7 Inverted rows (Upper body)


8 Crunches (Core)


9 High knees (Whole body)

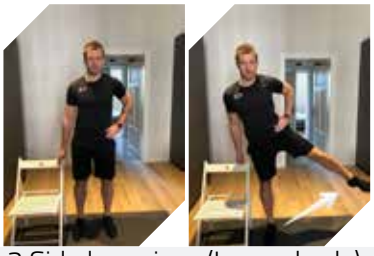

10 Lunges (Lower body)


11 Triceps dips (Upper body)


12 Push-up and rotation (Core)

Circuit example 2
3 rounds (12 exercises + 12 exercises + 12 exercises)
Exercise time: 30" / Recovery between exercises: 25" / Recovery between rounds: 30"
Total effort time: 18' / Total recovery time: 14'45"
Total session time: 32'45"

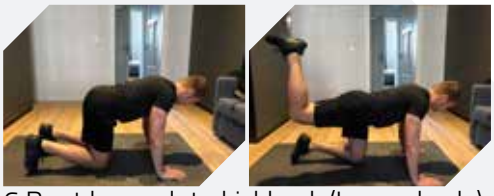

1 Bear crawl
(Whole body)


2 Side leg raises (Lower body)


3 Wall push-ups (Upper body)


4 V-sit ups
(Core)


5 Fingertip to toe jacks (Whole body)


6 Bent knee glute kickback (Lower body)


7 Table rows (Upper body)


8 Sitting twists
(Core)


9 Crab walks
(Whole body)


10 Lunge step-ups
(Lower body)

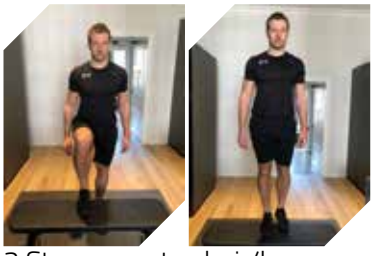

11 Pike push-ups
(Upper body)


12 Dead bugs
(Core)

Circuit example 3

4 rounds (12 exercises + 12 exercises + 12 exercises + 12 exercises)
Exercise time: 30" / Recovery between exercises: 15" / Recovery between rounds: 15"
Total effort time: 24' / Total recovery time: 11'45"
Total session time: 35'45"

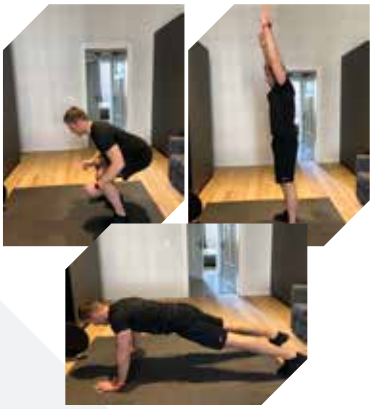
1 Jump rope
(Whole body)



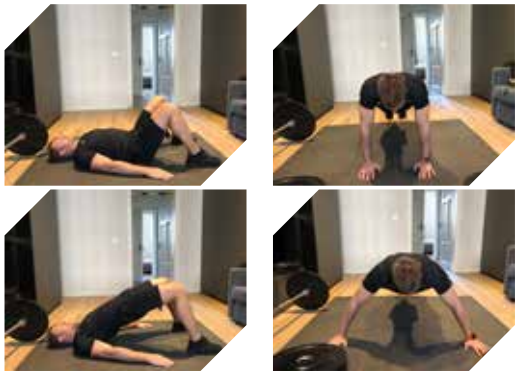
2 Step-up onto chair/box
(Lower body)

3 Shoulder taps (Upper body)

4 Side plank
crunches (Core)



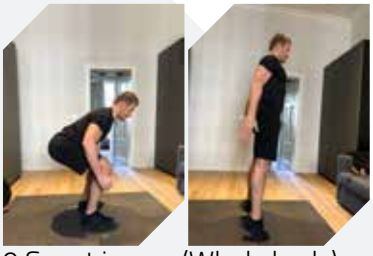
5 Burpees (Whole body)



6 Glute bridge
(Lower body)

7 Narrow to wide
push-ups (Upper body)

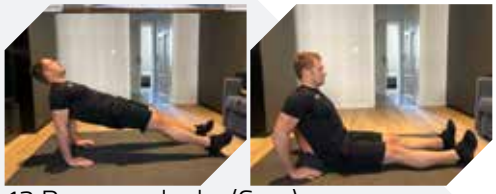
8 Bird dogs (Core)



9 Squat jumps (Whole body)

10 Single leg squats
(Lower body)

11 Superman
(Upper body)



12 Reverse planks (Core)

NUTRITION AND HYDRATION

- **Eat healthy food**, so you can get your immune system up to the optimal level. This means eating a diet high in fruits, vegetables, and whole grains.
- Since stress causes an increase in cortisol production which may lead to the weight gain, high blood pressure, and other health risks, **eat less often to maintain a healthy weight**.
- **Eat a nutritious breakfast daily** with carbs, protein, and fat, to help decrease the production of your appetite hormone and thus reduce impulse snacking and overeating at other meals. Also, it may contribute to keep your cholesterol in check and enhance your response to insulin.
- Take a multivitamin if you suspect that you may not be getting all the nutrients you need through your diet. However, **there is a risk of abuse of vitamin supplements**. There is no evidence that high-dose vitamin A, C and D supplements help to prevent the COVID-19 infection. On the contrary, extremely high doses of vitamins can lead to kidney and liver problems. While standard doses of vitamin C are generally harmless, high doses can cause a number of side effects, including nausea, cramps, and an increased risk of kidney stones.
- Consuming **20g dose of whey protein twice a day** will help to preserve a muscle mass.
- Having **a good hydration status is essential** prior to, during and after training sessions. **Do not wear extra clothes to sweat more. Drink plenty of fluid** to help your nose to maintain and repair the mucous membrane. The adequate daily fluid intake for men is 3.7 litres and for women is 2.7 litres. Sick people should drink more due to fever. Fever, coughing, diarrhea, and vomiting can contribute to dehydration.
- **Minimize or avoid alcohol intake**. If you drink alcohol, do it with moderation (1-2 drinks per day for men, 1 per day for women).

SLEEP

- **Go to bed early so you get ample sleep to boost the immune system.** Not enough sleep reduces the number and activity of the natural killer lymphocytes.
- **Follow a routine**, with consistent bed and wake times, and a regular schedule for exercise and meals. This will help to set your circadian rhythm (natural body clock).
- **Expose yourself regularly to the natural sunlight** to help set your natural body clock. Open your windows and expose yourself for at least 20 minutes.
- **Stay physically active** to improve sleep quality, even doing a quiet activity (e.g., fold some laundry). A regular exercise can lead to fatigue accumulation and promote a sleep pressure in the evening. In this sense, minimize spending time in bed in which you are not sleeping.
- A short nap (20-30') in the afternoon is recommended if you are sleep-deprived. **Do not oversleep during the day**, especially if you experience problems in falling asleep and/or sleeping through the night.
- **Avoid alcohol consumption and large meals** close to bedtime, they can produce sleep disturbances by interfering with sleep onset and maintenance.
- **Control caffeine intake (how much and when)**. Caffeine has a half-life of about 5 hours, therefore consuming caffeine late in the afternoon may impair sleep.
- **Avoid all electronic devices when preparing for bedtime** (at least one hour before). Their light may delay the release of the hormone melatonin, which tells the body that it is time to sleep. Blue light blocking technology may minimize their stimulating effect.
- **Create a comfortable sleep environment** (clean, cool, dark, and quiet).

Take care and be safe !

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