

Supplementary Table 1. Protocols related to athletes anthropometric measurements tests

Anthropometric Measurements	
Height measurement	Athletes were measured in centimeters on a 0.01-inch interval height chart with their feet flat and together, and their heads held straight and level.
Body weight measurement	Body mass [kilograms [kg]; Seca 761 scale, ±0.5 kg; Seca Co., Hamburg, Germany] and height [meters [m]; Cranlea JP60 portable stadiometer, + 0.001 m; Cranlea & Co] were measured using standard anthropometric techniques, with athletes wearing a T-shirt and shorts and standing barefoot on a digital scale.
Body mass index	Body mass index [BMI] is calculated for all athletes by dividing body mass [kg] by height [m] squared.
Subcutaneous fat measurement	Measurements were taken at nine different sites [subscapular, triceps, biceps, chest, suprailiac, abdomen, midaxillary, thigh, calf] for subcutaneous fat thickness using a skinfold caliper.

Supplementary Table 2. Protocols related to athletes athletic performance tests

Athletic Performance Tests	
Sit-and-reach flexibility	For flexibility measurement, after athletes sat on the measurement bench, they reached as far as possible without bending their knees and the measurement of the part where they withdrew their hand was recorded in centimetres.
Flamingo Balance Test	Measurements were taken using a plank measuring 50 cm in length and 5 cm by 3 cm in thickness. The athlete began by standing on the plank with their right foot, lifting their left foot off the ground and bending their knee backwards. The athlete held on with one hand for support, and the stopwatch was started upon the command 'go'. During this time, after the athlete released their supporting hand, any errors such as falling or holding on were recorded within a 1-minute period, and the time was stopped each time an error was made. The test was also repeated with the other foot, and athletes who made 15 errors within 30 seconds had their test terminated and were given a zero score.
Vertical Jump Test	In this test, the athlete stood sideways to a scale on a flat wall, keeping their feet flat on the ground, and raised their arm straight upwards. This determined the point where the athlete's fingertips made contact. They were then asked to jump upwards, and at the end of the test, the distance the athlete jumped and reached was recorded in centimetres.
Standing Long Jump Test	The athletes jumped forward simultaneously with both feet from their starting position, without touching the line, lifting their feet off the ground, or crossing the line. Additionally, the length of the distance from the starting line to the last point of contact of the athletes' bodies was measured in centimetres.
Leg Strength Test	After placing their feet on the dynamometer platform, athletes were instructed to pull the dynamometer bar vertically upwards to the maximum extent, using only their legs without engaging their back, until their knees were fully extended, while keeping their arms taut, their back straight, and their torso slightly bent forward. Measurements were taken using a Takei (Japanese) brand digital back-leg dynamometer.
Back Strength Test	In this test, athletes placed their feet on the dynamometer platform with their knees bent, arms extended, back straight, and torso slightly bent forward. They then pulled the dynamometer bar vertically upwards using their back muscles to the maximum extent, gripping it with their hands. Measurements were taken using a Takei (Japanese) brand digital back-leg dynamometer.
Hand Grip Strength Test	The athletes' hand grip strength was measured using a Takei hand dynamometer. The athlete was asked to sit without straining or moving their arm and squeeze the dynamometer as hard as possible with their hand.
Cooper Test	The Cooper test was conducted on a 400-metre synthetic athletics track under the supervision of the research team. Prior to the test, a 15-minute continuous warm-up run at a low-to-moderate pace was performed in addition to calisthenic exercises. Subsequently, the athletes performed the classic test protocol, which involved covering the longest possible distance over 12 minutes. Immediately after completing the test, the distance covered was measured using markers placed at 50-metre intervals along the track. In addition to being statistically more robust than the treadmill laboratory test, the Cooper test's fundamental strength lies in not requiring laboratory technology and being able to be incorporated into daily training routines to provide a relatively valid estimate of race time.
MaxVO2	VO <sub>2</sub> max estimate based on distance [meters] achieved in Cooper's 12-minute run test: VO <sub>2</sub> max [ml/kg/min] = Distance run [m] ÷ 504.9 / 44.73 was calculated using the formula.

Supplementary Table 3. Protocols related to athletes' pulmonary function tests

PFT Tests	
Pulmonary unction Tests	<p>This test was performed using the Chestgraph H1-101 spirometer device while subjects were sitting upright. Spirometry measures the air entering and leaving the lungs during various breathing maneuvers. This measurement determines how much air can be inhaled and exhaled and at what speed. Dynamic pulmonary function parameters were assessed using the Spirometer: FVC, FEV1, FEV1/FVC, and PEF.</p> <p><b>Dynamic Lung Volumes;</b></p> <p>§ Force vital capacity = FVC: The amount of air expelled by forcing out a maximum breath following a maximum breath in. The total amount of air expelled by forcing out a full breath.</p> <p>§ Forced expiratory volume in one second = FEV1: The amount of air that can be expelled within one second during FVC assessment. The volume of air expelled forcefully in one second.</p> <p>§ Forced expiratory volume in 1 second to forced vital capacity ratio = FEV1/FVC: It is the ratio of the forced expiratory volume in the first second to the total amount of air delivered in one breath. A ratio below 80% is considered an indication of airway obstruction.</p> <p>Peak expiratory flow rate = PEF: It is the maximum flow rate achievable during the FVC manoeuvre. As it is an indicator of obstruction in the large airways, along with FEV1, it is important to evaluate it.</p>