



SPORTS PERFORMANCE ANALYSIS



- Sports is not just a game, it's a profession which is more challenging and competitive.
- We believe every client is an athlete in his or her own way and thereby strive to achieve excellence in every athlete
- Every sport needs good amount of physical fitness, balanced nutrition, and mental fitness along with sports specific skills.



- Sports performance analysis is the holistic way of assessing physical, psychological and nutritional component of an athlete. Research shows that on average athletes and coaches can only recall 30% of performance correctly- performance analysis helps with the remaining 70%.



Apollo Life has come up with the most advanced and research based technology which can identify each component in detail and helps in understanding the athlete.

The complete assessment lab is mobile and can be done on site within 20 minutes for each which includes

- Body composition analysis,
- Movement/Motion analysis,
- Stamina/Metabolic/ Endurance testing,
- Sports Nutrition Assessment
- Sports Psychological assessment



BENEFITS OF ASSESSMENT

- Know your current sports related fitness level.
- Compare the fitness levels of athlete with the elite athlete of same sport.
- Designing the best and appropriate sports specific training program.
- To evaluate athletes strengths and weakness.
- To decrease the potential risk of injury.
- It gives feedback to the coaches and athletes to maximize their training potentials.
- Identifying the right athlete for the right position in the sport.



Why Apollo Life Studio?

- We are the first to incorporate the most advanced technology like ***Motion analysis, metabolic analysis and body composition analysis*** in the wellness program to provide the accurate and precise information of human body.
- Our assessment protocols and wellness programs are scientific, most recent and research based.
- We have the most experienced and highly skilled man power who understand ergonomics better.
- Backed by Apollo Hospital, we offer complete health related programs also.



Body Composition

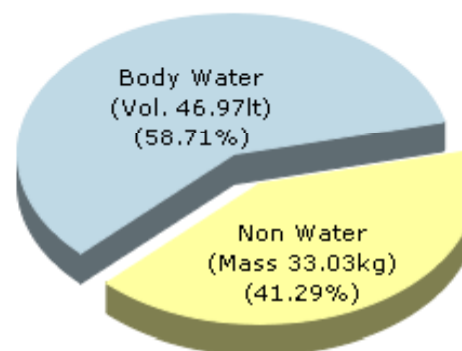
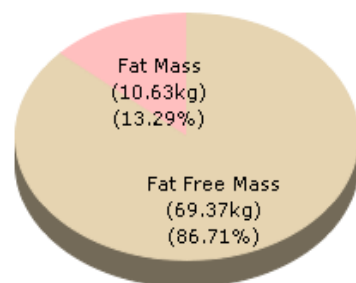


- Assesses fat mass
- Muscle mass
- Water content
- Dehydration risks
- Minerals
- Metabolism

Body Composition

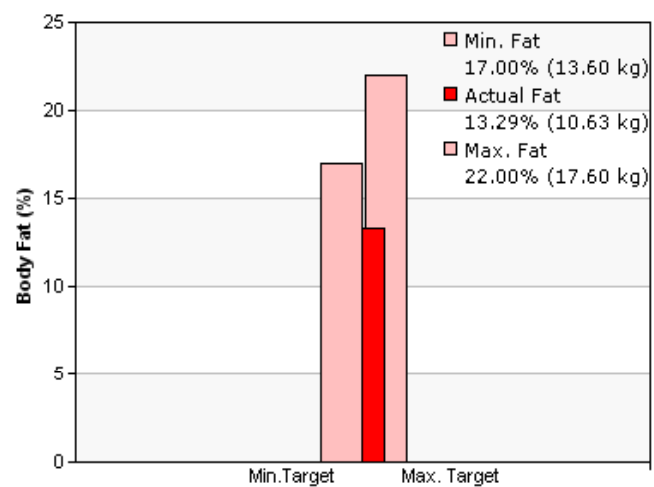
	Selected 23, Sep 15 Right Body	Previous not found Right Body
● Fat Free Mass :	69.37	kg
● Fat Free Mass %	86.71	%
● Fat Mass :	10.63	kg
● Fat Mass %	13.29	%
● Body Volume :	74.90	lt
● Body Density	1.0685	Kg/lt
● Resting Metabolic Rate :	2009.00	kcal
● Body Mass Index :	23.30	kg/sq
● Target Fat Min/Max % :	17.00 to 22.00 %	
● Target Weight Min/Max :	67.00 to 81.00 kg	

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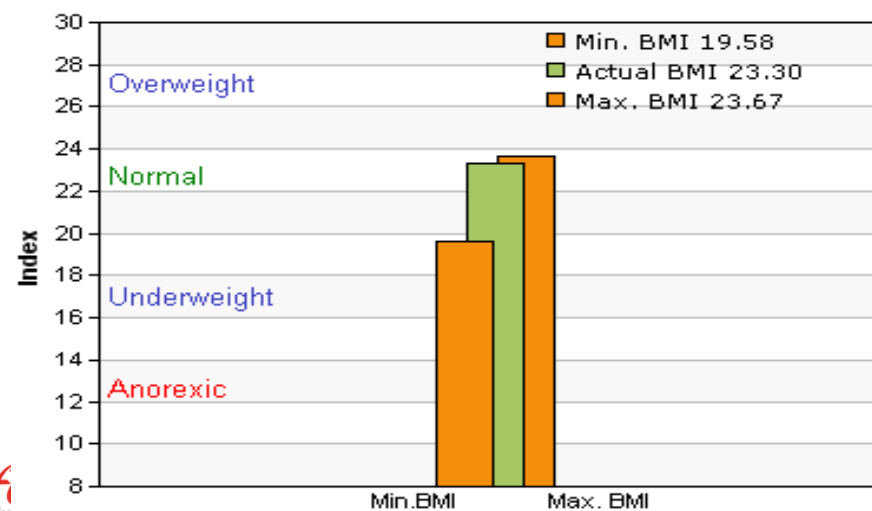


Body Water and Targets

Body Fat and Targets



BMI Level





Motion analysis





MOTION ANALYSIS

- Assesses biomechanics of movement.
- In detail analysis of each movement .
- Visual representation of the movement in form of skeletal view.
- Compared with the normal mechanics of the movement for any deviations.





Project
First Name
Last Name
Sex

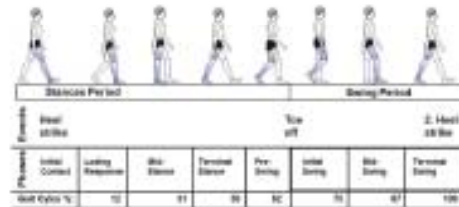
Project 1
m
mr mari
Male

Name
Date Measured
Number of periods

LOWER LIMB-2
10/17/2015 07:11
208



Gait Phases



Gait Phase Parameters

Stance phase, %	Left	28.2±5.7	
	Right	28.1±4.7	
	Diff, %	-0.4	
Load response, %	Left	667.4±83.4	
	Right	1.0±8.6	
	Diff, %	-88.8	
Mid stance, %	Left	-632.6±78.7	
	Right	-663.6±110.4	
	Diff, %	3.8	
Pre-swing, %	Left	1.3±12.1	
	Right	678.8±116.1	
	Diff, %	43838.8	
Swing phase, %	Left	73.8±6.7	
	Right	73.8±4.7	
	Diff, %	0.1	
Double stance, %		609.5±94.0	

Gait Spatial Parameters

Step length, cm	Left	-23±11	
	Right	28±12	
	Diff, %	-221.2	
Stride length, cm		6±7	
Step width, cm			
Velocity, km/h		0.1±0.0	

Gait Time Parameters

Step time, sec	Left	-8.88±4.08	
	Right	10.78±4.62	
	Diff, %	-221.2	
Stride time, sec		1.88±2.80	
Cadence, step/min		76±18	

ENDURANCE TESTING



- Assesses stamina
- Levels of fatigue
- Assesses peak performance
- Designing training programs
- Describes detailed physiology of player while playing

Test Results

Group	Variable	Unit	Rest	VT1	V'O2peak	Recovery	Norm.
Time	t	s	-	0:01:00	0:10:14	-	-
Workload							
Metabolism	V'O2	L/min	-	2.48	3.66	-	2.82
	V'O2%Norm	%	-	88	130	-	-
	V'O2/kg	ml/min/kg	-	41	61	-	47
	RER		-	0.90	1.07	-	-
Cardiovascular	HR	/min	-	157	202	-	175
	V'O2/HR	ml	-	16	18	-	16
	BPs	mmHg	-	-	-	-	191
	BPd	mmHg	-	-	-	-	-
Ventilation	V'E	L/min	-	55.3	124.9	-	135.2
	VT	L	-	1.64	2.16	-	-
	BF	/min	-	34	58	-	40
	%BR	%	-	67	26	-	-
	V'E/V'O2		-	22.7	31.8	-	-
	V'E/V'CO2		-	25.1	29.6	-	-
	VD/VT		-	0.10	0.11	-	-
Gas Exchange	PaO2	mmHg	-	-	-	-	-
	PaCO2	mmHg	-	40	34	-	-
	P(A-a)O2	mmHg	-	-	-	-	-
	P(a-et)CO2	mmHg	-	-2	-3	-	-
	pH		-	-	-	-	-
	BE	mmol/L	-	-	-	-	-
	PetCO2	mmHg	-	42	37	-	-



Assessment to Maximum Exercise

Performance Assessment

(V'O₂/kg)peak 61 ml/min/kg



Relation to Normal Values

VT1 2.48 L/min



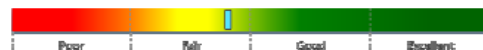
WRmax - W



(V'O₂/HR)max 18 ml



V'Emax 124.9 L/min



BFmax 58 /min



Maximum Exercise Criteria

RERmax 1.07

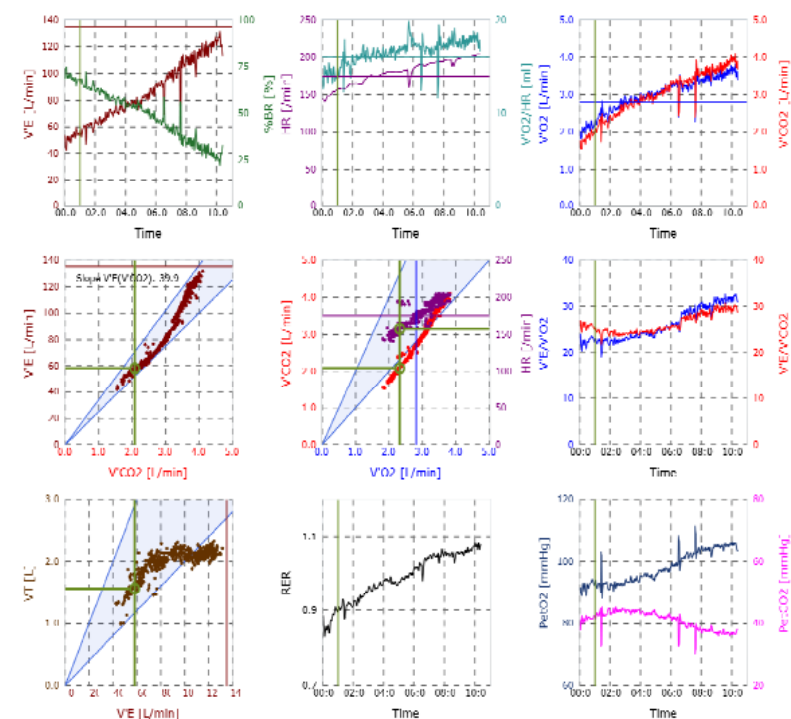


HRmax 202 /min



Additional Information

BMI 20





Exercise Heart Rate Zones

Training program

E > 117%@VT1

Top

HR [/min] > 185
v [km/h] > -
EE [kcal/h] > 973

Very high to maximum intensity to develop speed strength and speed stamina, and to improve anaerobic mobilization capability. Intensity is clearly above VT1 within the range of maximum oxygen uptake. "Top Zone" training should be done by athletes only, participating in competitions and being absolutely healthy.

D 108%@VT1 - 117%@VT1

Development

HR [/min] 171 - 185
v [km/h] - - -
EE [kcal/h] 861 - 973

High intensity within aerobic-anaerobic transition range to develop strength stamina and competition specific endurance, and to increase aerobic capacity. Production of required energy is nearly completely based on carbohydrate burning. Mainly interval training. For ambitious hobby athletes suitable for further improvement if basic endurance is well trained. For athletes during last preparation period and competition period.

C 100%@VT1 - 108%@VT1

Intensive Endurance

HR [/min] 157 - 171
v [km/h] - - -
EE [kcal/h] 680 - 861

Medium intensity to maintain and develop basic endurance, and to increase aerobic performance. Together with the zone "Extensive Endurance" this is the most important training zone. One should train mainly within these both zones for fitness and wellness purposes. Moreover these zones build up the necessary basis for higher intensities.

B 100%@VT1 - 100%@VT1

Extensive Endurance

HR [/min] 157 - 157
v [km/h] - - -
EE [kcal/h] 629 - 680

In this zone the workload is between VT1 and VT2. Energy is delivered mainly by carbohydrates. The subject's impression of the workload is moderate to exhausting. For this method of exercising, both continuous and interval exercising will be used. Forced endurance runs are typical.

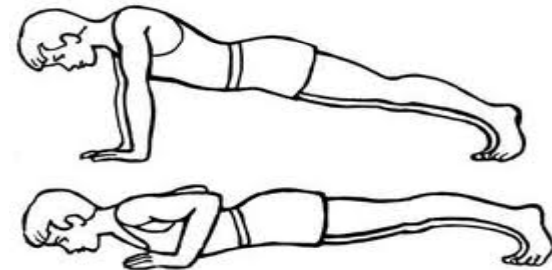
A < 100%@VT1

Compensation

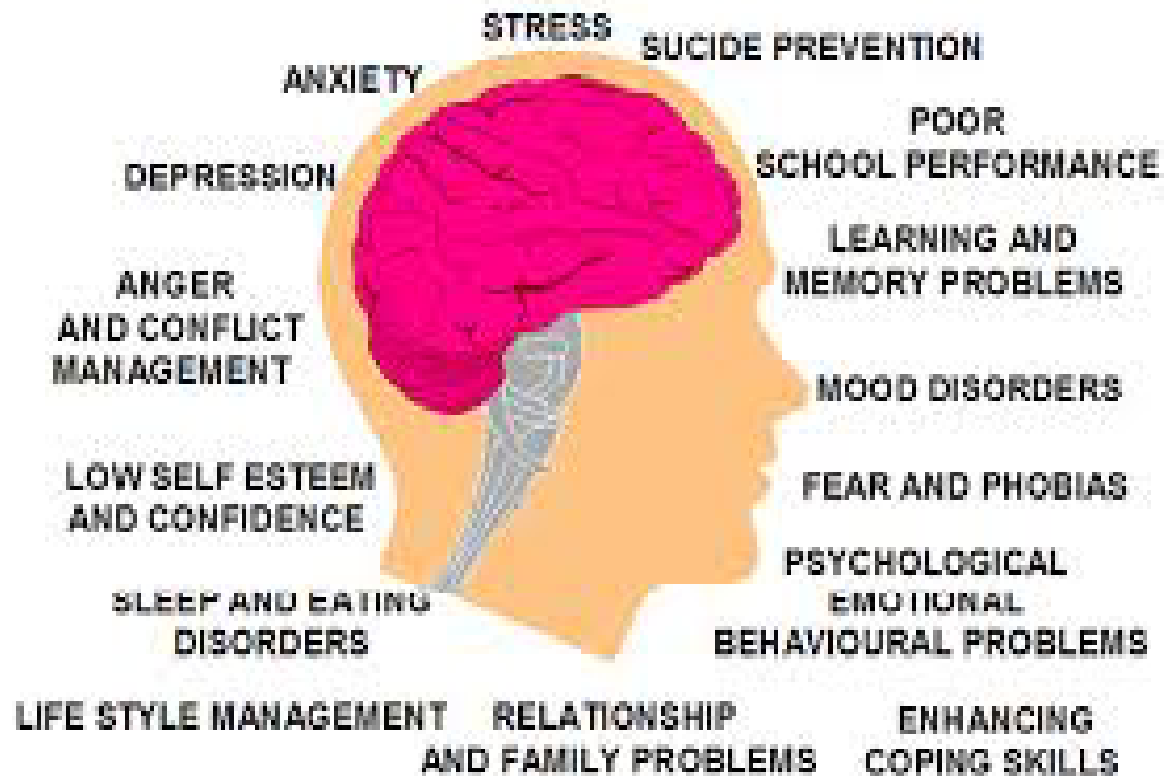
HR [/min] < 157
v [km/h] < -
EE [kcal/h] < 629

Very low intensity for warm up and cool down before and after competitions and intensive training units. This activity is practiced as a very slow and relaxed unit either in usual sports discipline or in a compensatory way in another sport (for example relaxed swimming for a runner).

Physical Test



Psychological Assessment



Diet Assessment



3. Dietary assessment

Nutritional intake of humans is assessed by five different methods. These are:

- 24 hours dietary recall
- Food frequency questionnaire
- Dietary history since early life
- Food diary technique
- Observed food consumption



Healthy diet



THANK YOU