METHODS 145 male soccer players (10 goalkeeper [GK], 48 defender [D], 53 midfielder [M], 34 forward [F]) from TSL and 141 players (18 GK, 38 D, 61 M, 24 F) from SDL were tested with incremental protocol which was started with 8 km.h-1 and increased 1 km.h-1 every 3 minutes until the players were exhausted. HR and RV responses at fixed LA concentrations were determined from LA-RV and HR-RV graphics.

RESULTS RV of TSL players corresponding to 3.0, 3.5, 4.0 mmol.l-1 [LA] were significantly higher, whereas HR were significantly lower at 5.0 mmol.l-1 [LA] than SD players. HR responses of midfielders from TSL were significantly lower than players at the same position of SD, whereas HR responses of other positions were similar.

CONCLUSION Endurance performances were significantly different at sub-maximal intensities among the players according to playing positions in the two leagues. However, endurance performances of players with different playing positions in the same league were similar.

KEY WORDS Soccer, lactate, heart rate, endurance, playing position.

P-013 Left ventricular hypertrophy by electrocardiographic point scoring criteria in professional soccer players and sedenters

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OBJECTIVE After collapse of 14 years old soccer player during a official match (Iskandar & Thompson, 2004), all media attention has returned to topic of sudden deaths in soccer field which was an terrifying event for either soccer players or spectators. It has become a clinical priority to precociously detect left ventricular hypertrophy by effective, low-cost screening, applicable to the population in general.
The main purpose of this study was to assess left ventricular hypertrophy (LVH) by electrocardiography point scoring criteria in professional soccer players and healthy sedenters. The secondary purpose of this study was to evaluate physiological and biochemical parameters of the professional soccer players.

METHODS Fifty healthy males with a mean age of 24,7±6,0 years old were evaluated. Soccer players were playing in Turkish Priemier League. Physical examination, 12 leads resting electrocariogram and biochemical assays (blood counts, lipids, cholestrol, LDL, VLDL, NA, K and Ca) were examined. Electrocardiographic "point scoring criteria" for determining LVH was calculated according to White-Bock equation (Gasperin et al. 2002).

RESULTS The results of the independent t test analysis of electrocardiographic point scoring criteria (EPSC) scores showed that there were no significant differences between soccer players and sedenters' electrocardiographic pattern in terms of LVH evaluation, t=0,39, p>0,05.

CONCLUSION The electrocardiographic analysis (Gasperin et al., 2002) for LVH showed that professional soccer players did not show increased cardiac dimensions compared with healthy sedenters.

REFERENCES
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KEY WORDS LVH, ECG, biochemical parameters, soccer.

P-014 Yo-Yo intermittent recovery test level 2 in evaluation of physical performance in different groups of athletes

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OBJECTIVE The Yo-Yo intermittent recovery test (YYIR) has been widely used in team sports to assess athletes' abilities to repeatedly perform high-intensity exercise. Specifically, the Yo-Yo IR2 test was shown to be a sensitive tool

to differentiate between intermittent exercise performance of soccer players in different seasonal periods and at different competitive levels and playing positions. The aim of the present study was to compare the YYIR2 performance of different groups of athletes in relation to their competitive level and to the type of sport practiced.

METHODS YYIR2 test performances of several groups of male athletes competing in different sports (Soccer, Badminton, Australian Football (AF), Ice-hockey and Running) and at different competitive levels (Elite, Sub-elite, and Trained) were collected and subsequently examined for mean differences.

RESULTS The YYIR2 performance of elite male badminton players (1020±53m) was the same as elite soccer players (1060±57m), whereas sub-elite AF players had a similar level (720±35m) 1, 2 to sub-elite soccer players (830±44m). Performances of sub-elite ice-hockey players (510±44m) and moderate-trained marathon runners (460±46m) were significantly ($P<0.05$) below the level observed for sub-elite soccer players.

DISCUSSION An athlete's ability to perform intermittent exercise was specific to the type of sport practiced with team-sport players being better than endurance runners. In particular, soccer players were exceptionally skilful in performing repeated high-intensity exercise. In conclusion, the YYIR2 was proven to be specific for the type of exercise observed in intermittent sports.

KEY WORDS Fitness testing, intermittent exercise, team sports.

P-015 Physiological responses of young soccer players to fixed lactate concentrations in playing positions

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OBJECTIVE The purpose of this study was to compare the running velocity, heart rate and oxygen consumption corresponding to the fixed lactate concentrations (2.0, 2.5, 3.0, 3.5, 4.0, 5.0 mmol.l-1) of young soccer players with regard to among the playing positions. Physiological parameters like oxygen consumption, heart rate and blood lactate show differences according to playing position in soccer

METHODS 49 Young soccer players (Age: 17.2 ± 0.7 years) were tested with progressive incremental test with start running speed at 8 km.h-1 for 3 min duration and 1 min rest intervals. Running velocities (RV), VO2 and HR were assessed according to fixed [LA] were determined with third-order interpolation method from HR-workload, VO2-workload and Lactate-workload graphics.

RESULTS Although RV of mid-fielders corresponding to fixed [LA] were higher, no significant differences were found on RV, VO2 and HR at the fixed lactate concentrations among the playing positions. Furthermore, VO2max values of mid-fielder were higher than other positions, but there were no significant differences between positions ($p>0.05$).

CONCLUSION The results of the present study revealed that, the physiological responses of young soccer players were similar at sub maximal intensities for all positions.

KEY WORDS Soccer, Lactate, Heart Rate, Endurance, Playing Position

P-016 Fitness demands of soccer players

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OBJECTIVE The purpose of this study was to measure and compare the university football players' mental toughness and it its sub scales (rebound ability, handle pressure, concentration, confidence and motivation) Doubtlessly physical education and sports differ in terms of? Among other sports football is one of the most popular one with for its beauty, attractiveness and toughness. Sports go through a preparatory phase including physical, technical, tactical drills, how-