

P3**ANALYSIS OF SPRINTING SPEED IN DIFFERENT DIRECTIONS**Jere Gulin¹, Vlatko Vučetić¹¹Faculty of Kinesiology, University of Zagreb, Croatia**Correspondence:** jere.gulin@kif.hr

The ability to sprint is very important in many team sports. Information about top sprinting speed can help practitioners not only to select players, but also to create more precise HIIT programs in terms of intensity prescription. **PURPOSE:** The main goal of this study was to analyze the sprinting speed of three sprinting directions (frontal, sideways, and backwards). **METHODS:** The study included 11 male kinesiology students with a background in team sports (age 20,2±2,0 yrs, height 180,0±5,2 cm, weight 73,8±10,5 kg). All subjects completed a total of six sprints (two for each direction) in randomized order over a distance of 40m. Sprinting speed was measured with a radar gun (Stalker ATS II, USA). The rest between sprints was 3 minutes. **RESULTS:** The results clearly point to the conclusion that forward sprint speed (30,5±0,8 km/h) is statistically significantly higher ($p<0,05$) than sprints in other running directions, specifically sideways (19,0±1,6 km/h) and backwards (19,3±0,9 km/h). **CONCLUSION:** Lower speeds in the acceleration phase during backward running are primarily due to less horizontal ground reaction force, which then results in a shorter stride length and a shorter flight phase in comparison to forward running. Running backwards and sideways is characterized by shorter stride length and, at the same time, a higher stride frequency, which directly affects a longer duration of ground contact and a shorter flight phase.

P4**ASSOCIATION OF YO-YO INTERMITTENT TEST WITH HIGH METABOLIC LOAD DISTANCE IN STANDARD TRAINING GAMES: DO WE NEED TO TEST OUR PLAYERS?**Predrag Bozic¹¹Serbian Institute of Sport and Sports Medicine (Belgrade, Serbia)**Correspondence:** vlatko.vucetic@kif.hr

PURPOSE: The purpose of this study was to explore if the volume of high intensity activities, obtained from standard football training game, is associated with endurance ability assessed through Yo-Yo intermittent recovery level 1 test (YYIR1). **METHODS:** Twenty-two (25 ± 4 years; 75.2 ± 8.1 kg; 178 ± 8 cm) professional soccer players participated in the study. All data were collected during two training sessions with players' soccer activity recorded using 10-Hz GPS. Additionally, in one session players are tested through YYIR1 protocol. GPS data were recorded during two sessions of typical big-sided games 11v11. For the purpose of this study, from GPS data we used High Metabolic Load Distance (HMDL) parameter. It is a metric which measures the total amount of high-speed running an athlete does, coupled with the total distance of accelerations and decelerations throughout a session. **RESULTS:** Significant correlations ($p < 0.05$) were found between the distance covered in YYIR1 and HMDL obtained during standard training game ($r = 0.83$). **CONCLUSION:** The results suggest that while the YYIR1 is useful tool to guide training prescription and monitor players preparedness, specific parameters obtained from standard training games, such as HMDL, might be efficient tool that contribute in player monitoring on daily or weekly basis.

P5**ATTITUDES OF PROFESSIONAL AND SEMI-PROFESSIONAL CROATIA MMA FIGHTERS TOWARDS INJURY MANAGEMENT**Ivan Jurak¹, Lucija Gnjiđić¹, Vatroslav Jelovica^{1,2}¹University of Applied Health Sciences, Croatia, Zagreb, ²Faculty of Political Science, Croatia, Zagreb**Correspondence:** ivan.jurak@zvu.hr

A positive attitude towards good injury management practice increases the likelihood of adherence to full rehabilitation protocol. **PURPOSE:** The purpose of this study is to explore athletes' attitudes towards injury management within the setting of their respective clubs and their level of trust in coaches to adhere to rehabilitation protocol. **METHODS:** Deep interview with three coaches and three professional fighters was conducted to structure the questions and afterwards questions were evaluated by an 8-participant focus group. Questionnaires were administered to a group of 34 professional and semi-professional fighters. Using Exploratory Factor Analysis, two factors were extracted – "Attitude toward injury management" and "Trust in coach regarding injury". Linear regression was used to ascertain relationships between each of factors, fighters age, experience, and general injury knowledge. **RESULTS:** Mean age was 22.3 (17 - 37) and their mean fighter experience was 5.55 (1 - 18). Age was positively correlated with fighters' general knowledge of injuries ($\rho=0.5$), although it was not significantly correlated with either age or their experience as fighters. Attitude toward injury management was positively correlated with Trust in coach regarding injury. **CONCLUSION:** MMA coaches are usually the first person of contact for fighters regarding injuries. While trust in coaches is generally high, their attitude towards injury management is not. More effort should be made towards enhancing the cooperation between coaches and health specialists.

P6**BODY COMPOSITION OF BOSNIA AND HERZEGOVINA U-19 NATIONAL FUTSAL TEAM ACCORDING TO PLAYING POSITION**Ivana Cerkez Zovko¹, Dusko Bjelica², Borko Katanic³, Marin Corluca¹¹University of Mostar, Faculty of Science and Education, Mostar, Bosnia and Herzegovina, ²University of Montenegro, Faculty for Sport and Physical Education, Niksic, Montenegro, ³University of Nis, Faculty of Sport and Physical Education, Nis, Serbia**Correspondence:** ivana.cerkez.zovko@fpmoz.sum.ba

Elite futsal players in addition to other characteristics, must have suitable anthropometric and body composition according to their playing position. **PURPOSE:** The research aimed to determine body composition of Bosnia and Herzegovina U-19 national futsal team players and also determine differences in anthropometric and body composition of players according to their playing position. **METHODS:** The sample of respondents consisted of Bosnia and Herzegovina U-19 National Futsal Team players ($n=14$, average age 18.07±0.48 yrs, body height 181.40±5.72 cm, and body weight 77.66±10.60 kg). Morphological characteristics and body composition were evaluated by a battery of 11 variables: body height (BH), body mass (BM), triceps skinfold (TS), biceps skinfold (BiS), back skinfold (BS), abdominal skinfold (AS), upper leg skinfold (UIS), lower leg skinfold (LIS), body mass index (BMI), fat percentage (FP), and muscle mass percentages (MP). Futsal players were divided according to their positions in the team into goalkeepers, defenders, wingers and pivots. **RESULTS:** Based on ANOVA and post-hoc tests, the findings showed that there were significant differences between groups in 8 out of 11 morphological parameters. The results show that goalkeepers have a higher percentage of body fat than other players, but also pivots in 3 morphological variables have higher values than defenders and wing players. **CONCLUSION:** Although this study is important, because it examines the morphology of elite futsal players and in-