

**UNIVERSITI TEKNOLOGI MARA**

**COMPARISON BETWEEN NATURAL  
GRASS AND SYNTHETIC TURF ON  
SPRINTING AND AGILITY  
PERFORMANCE AMONG YOUNG  
SOCCER PLAYERS**

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Research project submitted in partial fulfilment of the  
requirements for the degree of  
**Bachelor of Sports Science (Hons.)**

**FACULTY OF SPORT SCIENCE AND RECREATION**

**JANUARY 2017**

**AUTHOR'S DECLARATION**

I declare that the work in this research project was carried out in accordance with the regulations of Universiti Teknologi MARA. It is original and is the result of my own work, unless otherwise indicated or acknowledge as referenced work. This research project has not been submitted to any other academic institution or non – academic institution for any degree on qualification.

I, hereby, acknowledge that have been supplied with the Academic Rules and Regulations for Post Graduate, Universiti Teknologi MARA, regulating the conduct of my study and research.


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Sprinting and Agility Performance among Young Soccer Players

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## ABSTRACT

Football on synthetic turf is presently normal in several of European nations, for the most part since natural grass surface or field are usually to use for training and match during hot or cold condition. Athletic performance in soccer is a function of aerobic fitness, anaerobic fitness, speed, muscular strength, muscular power, and agility. Therefore, the purpose for this study was to compare between natural grass and synthetic turf on sprinting and agility performance among young soccer players. Moreover, thirty young soccer players were from National Football Development Program at MSN Bukit Jalil. The sample were doing the 30 meter sprint test for sprinting performance and L run test for agility performance. The result was found that there was significant difference in the mean scores for sprinting performance on natural grass ( $M = 4.57$ ,  $SD = 0.17$ ) and the sprinting performance on synthetic turf ( $M = 4.32$ ,  $SD = 0.17$ ) conditions; ( $t = 5.69$ ,  $p = 0.00$ ). This can be concluded that there was a significant difference between natural grass and synthetic turf on sprinting performance among young soccer players. For agility performance, the result was found that there was a significant differences in the mean scores for agility performance on natural grass ( $M = 10.73$ ,  $SD = 0.17$ ) and agility performance on synthetic turf ( $M = 10.51$ ,  $SD = 0.20$ ) conditions; ( $t = 4.67$ ,  $p = 0.00$ ). This can be concluded that there was a significant differences between natural grass and synthetic turf on agility performance among young soccer players. Therefore, this study can be concluded that young football players have better sprinting and agility performance on synthetic turf compared to natural grass.

Keyword : *sprinting, agility, soccer, young players, strength, fitness, power,*

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