

RAMADAN AND FOOTBALL

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Ramadan is a holy month for Muslims during which they observe intermittent fasting for approximately 30 days. The practice of Ramadan fasting is obligatory for all healthy, adult Muslims and requires each to abstain from food and fluid from sunrise to sunset. According to Muslims, Ramadan fasting is regarded with high importance as it is considered a spiritual act that increases God-consciousness and brings about personal improvement through self-restraint. During Ramadan, Muslims believe they are spiritually more enlightened and rise up towards nobler acts that bring one closer to God. While the choice to fast is that of every individual, for football players and other athletes, the effects of Ramadan fasting on sports performance needs to be considered.

Ramadan is dictated by the Islamic calendar, which follows a lunar cycle and is shorter than the Gregorian calendar by 10 to 11 days. As a result, the month of Ramadan shifts forward each year, through the seasons, and completes a cycle every 33

years. Over the next few years, Ramadan will be observed in July and August (2013) and will progress to June by 2016. This period presents an additional challenge for football players and all Muslim athletes living in the northern hemisphere, as longer summer days mean a longer fasting period.

It is not uncommon for major sports competitions to be held during Ramadan. Last year, the London 2012 Summer Olympic Games was held during the month of Ramadan. Over the next few years, major international competitions will also overlap with Ramadan (Figure 1). The FIFA World Cup 2014 in Brazil will be held from 12 June to 13 July and will coincide with the month of Ramadan, which will start 28 June 2014. In 2016, the UEFA European Football Championship, also known as the 'Euro cup' in France, will coincide with 3 weeks of Ramadan.

Importantly, it is estimated that 29% of the world's population are Muslim. According to a FIFA report, Muslim football fans are estimated to number

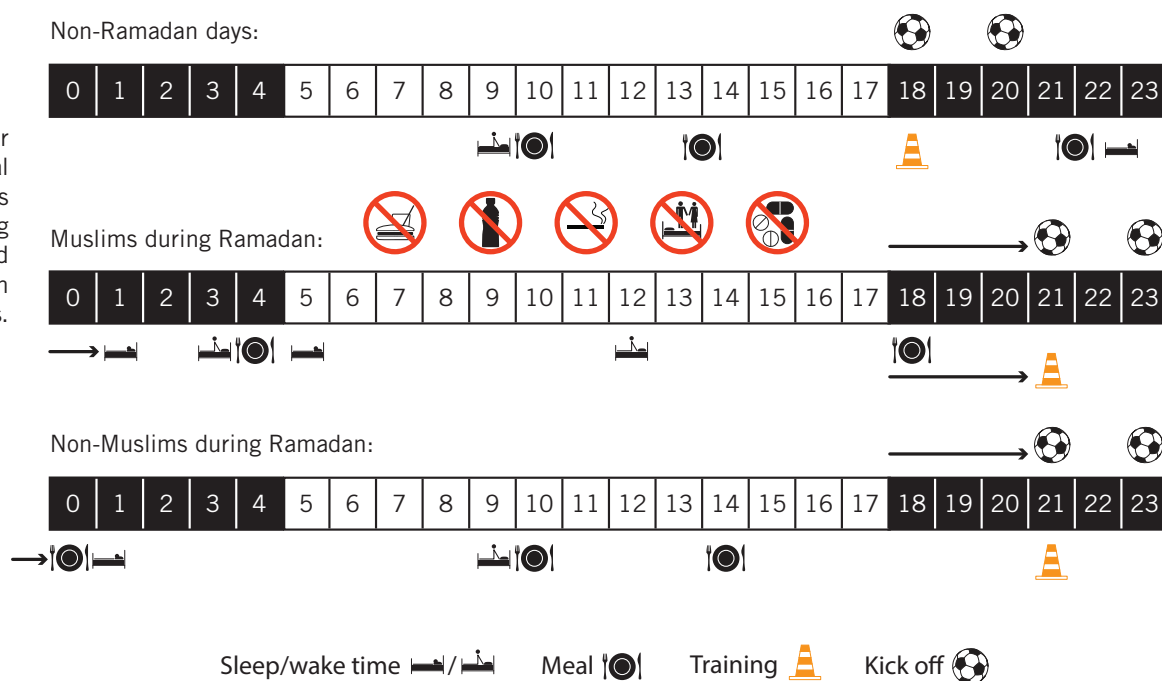
270 million, representing 208 different countries. Although distributed widely, the concentration of Muslims is high in countries where football is a popular sport, such as in the Middle East and Africa. Given the popularity of football among Muslims across the globe, Ramadan and football are closely linked. The present article is intended



The 2014 FIFA World Cup in Brazil and 2016 UEFA European Football Championship will coincide with Ramadan



Figure 2: The Qatar Stars League's usual schedule of matches and training during Ramadan and non-Ramadan months.



at this time will avoid diet and hydration restrictions before, during and after exercise. The Qatar Stars League's usual schedule of matches and training illustrates this perspective (Figure 2). During non-Ramadan months, all training sessions take place in the evening and matches start around 6.30 pm or 8.30 pm. These timings are delayed during Ramadan and when there are two matches to be played in a day, the second match could be as late as 11.30 pm.

Importantly, Qatar is predominately a Muslim country, and therefore this schedule is designed to fit into the lifestyle of the majority who are fasting. However, for the 10 to 15% of non-Muslims who are also participating in football training and competition, their meal timings and sleep habits may be different, which could negatively influence their performance should they not cope well with such changes in training and competition schedules. Of course, in non-Muslim predominate countries the opposite may also be true. Thus, in all cases both coaches and athletes must communicate to find what is most effective for each individual, for the team and for the competitions.

SLEEP

Sleep loss is a major factor leading to daytime fatigue and poor concentration, which is believed to limit performance and recovery in athletes. New research demonstrates that Muslim football players have major disturbances to sleep during

Ramadan. In Qatar football players, there is a substantial delay in the sleep period, increased sleep fragmentation and more reports of daytime fatigue. Therefore, the impact that sleep has on both recovery and performance, especially during Ramadan when major changes in lifestyle occur, needs to be considered.

Firstly, coaches and athletes must be made aware of the importance of sleep. Further it is recommended that training and competition schedules are balanced with sleep-wake pattern. In all cases, athletes need to be encouraged to schedule their lifestyle to maintain a minimum of 7 hours sleep and ideally between 8 to 9 hours. Interventions such as sleep education, daytime naps and specialist sleep improvement may be warranted to limit fatigue and improve recovery.

PERFORMANCE AND INJURIES

During Ramadan, the crucial question to consider is whether or not training intensity can be maintained. It is well known that sufficient training intensity is needed to promote adaptation and improve athletic performance.

The available literature suggests that when provided with adequate diet, hydration and sleep, football players can maintain their performance as long as the training load is also maintained in relation to intensity and volume. Notably, one study has reported an increase in injury rates among non-Muslims (in a Muslim

country) where training and matches were held during evening and late night hours. Thus, it appears that the ability for individual athletes to cope with the changes during Ramadan is a key factor mediating performance.

The fact that all athletes respond differently to training is not new. However, during Ramadan there are additional lifestyle changes to consider. It is especially

Any training between sunrise and sunset is not recommended

important during this time that coaches routinely collect feedback from athletes on factors that may affect both their mental and physical performance. This includes diet, hydration, sleep, training load, recovery, mood and motivation. By doing so, any significant deviation from the pre-Ramadan levels should then be considered cause for appropriate intervention according to team protocols.

TO FAST OR NOT TO FAST?

The decision whether or not to fast during Ramadan is not new for professional Muslim athletes. In Qatar and many of the

Middle East and Arab countries, Ramadan fasting is practiced from the age of 10 to 12 years. Even after a few years of experience, each athlete will have developed their own set of beliefs, knowledge and perceptions about the impact that Ramadan fasting has on both mental and physical performance. While these perceptions may not be scientifically proven they are valid and should therefore be considered.

The decision on whether or not to fast may receive criticism and disapproval from family, friends and members of the community or coaches who give more weight to religion or sport. It has been reported that some professional league football players observe Ramadan fasting during training as well as during games. Others observe Ramadan fasting on training days but not on match days. In essence, the right to practice ones faith is recognised as a universal human right. However, the decision to observe the Ramadan fast among football and other athletes is not without concern for others (Figure 3). An Iranian national team player was excluded from the national team squad because he decided to break his fast. Three Muslim players from a German football club received warnings for failing to inform the coach about their decision to fast.

As previously described, in Muslim majority regions athletes will often chose to fast every day because of the social support and culture. In addition, they will receive full support and convenient training and competition plans from organisers.

Of course, some coaches, for example those living in a non-Muslim predominate country are less concerned about Ramadan, since they may have only a couple of Muslim players in the team, while others coach an entire team that practices Ramadan fasting. Therefore, any decision that goes against the team's will can increase mental pressure and decrease team morale. These examples not only highlight the various opinions among athletes and coaches, but also highlight the influence that the surrounding environment may have on whether or not an athlete decides to fast.

CONCLUSION

In conclusion, Ramadan fasting results in a shift of food and fluid intake from daylight to night time, which presents major lifestyle changes that may negatively affect sports performance if not monitored and controlled. The occurrence of Ramadan with major football competitions is increasing and becomes important to consider given that football is a sport that requires all 11 players on the field to perform at their best physical and mental effort. While the decision on whether or not to fast is that of each individual athlete, we believe that coaches and organisers can play an important role in providing accurate and updated knowledge about the impact of Ramadan fasting on health and physical performance, and ultimately have mutual agreement with athletes on the best strategy for training and competition during Ramadan.

References

1. Roky R, Herrera CP, Ahmed Q. Sleep in athletes and the effects of Ramadan. *J Sports Sci* 2012; 30:S75-84.
2. Maughan RJ, Shirreffs SM. Hydration and performance during Ramadan. *J Sports Sci* 2012; 30:S33-41.
3. Maughan RJ, Zerguini Y, Chalabi H, Dvorak J. Achieving optimum sports performance during Ramadan: some practical recommendations. *J Sports Sci* 2012; 30:S109-17.
4. Burke L. Fasting and recovery from exercise. *Br J Sports Med* 2010; 44:502-508.
5. Zerguini Y, Dvorak J, Maughan RJ, Leiper JB, Bartagi Z, Kirkendall DT et al. Influence of Ramadan fasting on physiological and performance variables in football players: summary of the F-MARC 2006 Ramadan fasting study. *J Sports Sci* 2008; 26:S3-6.
6. Burke LM, King C. Ramadan fasting and the goals of sports nutrition around exercise. *J Sports Sci* 2012; 30:S21-31.
7. Kirkendall DT, Chaouachi A, Aziz AR, Chamari K. Strategies for maintaining fitness and performance during Ramadan. *J Sports Sci* 2012; 30:S103-8.

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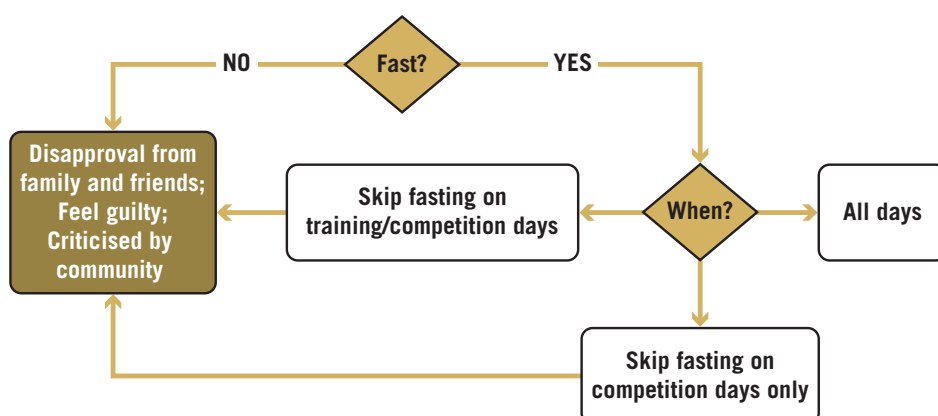
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Figure 3: The ramifications of the decision made by players of whether to fast or not during Ramadan.



RAMADAN INTERMITTENT FASTING EFFECT ON FOOTBALLERS

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INTRODUCTION

Given the high level of sporting competition that occurs at an international level there is a need for equitable competition among athletes. The international fair play committee recognizes the importance of a level playing field for international athletes and states that “*fair play calls for the greatest understanding of the social environment of competitors and of different cultures*” (<http://www.fairplayinternational.org/what-is-fair-play->, last visit: December 27, 2022). More specific to football, the Fédération Internationale de Football Association (FIFA) promotes fair play, diversity, and anti-discrimination in the spirit of competition and cultural inclusion (<https://digitalhub.fifa.com/m/6363f7dc616ff877/original/wg4ub76pezwcnsaoj98-pdf.pdf>, last visit: December 27, 2022). However, despite awareness around the need for equitable competition, it is likely that some athletes may experience disadvantages in competition due to cultural practices. When considering that certain religious practices may significantly influence the everyday

life of high-level football players, it becomes apparent that the fairness of competition may be influenced. During the holy month of Ramadan, which is based on a lunar cycle calendar, Muslim athletes fast from dawn to sunset for 29-30 consecutive days every year. Observing RIF means not being allowed to eat or drink during the daytime hours and replenishing oneself only during dark hours. The last possible meal before dawn is called *Suhoor* and the fasters complete/close their daily fast at sunset with *Iftar*. In this context, recent international sports competitions have not taken into consideration Muslim athletes who observe RIF during these sporting events. The 2012 London Olympics and the 2014 FIFA World Cup overlapped with the month of Ramadan and no notable change in the competition schedules were observed. Fasting Muslim athletes competed in a fasted state. The overlap of timing with RIF and high-level sports competition may create a challenge for healthy adult Muslims competing in these events. Importantly, as the lunar cycle month of Ramadan shifts on the Gregorian calendar over a cycle of

33 years, depending on the time of the year (season) and geographical location (latitude positioning), the length of the daily fast can vary drastically from relatively short fasting periods of less than 12 hours, to extremely long fasting durations of 20 hours or more. It is much easier to fast during the short days of the cold winter than during the long and hot summer days. When it comes to the management of the athletes' daily life, both changes to patterns around eating and sleeping among Muslim athletes during-Ramadan may impose challenges.

Football is the most practiced sport globally and has also been reported as the most scientifically studied sport. Physical demands while playing football can be observed in many ways, specifically the cardiovascular system. During a match, professional senior football players often cover the equivalent of over 10 km at various levels of effort¹. A 2022 systematic review of the literature² has examined the influence of RIF on footballers across various performance measures, physiologic parameters, and rate of injury. In order to