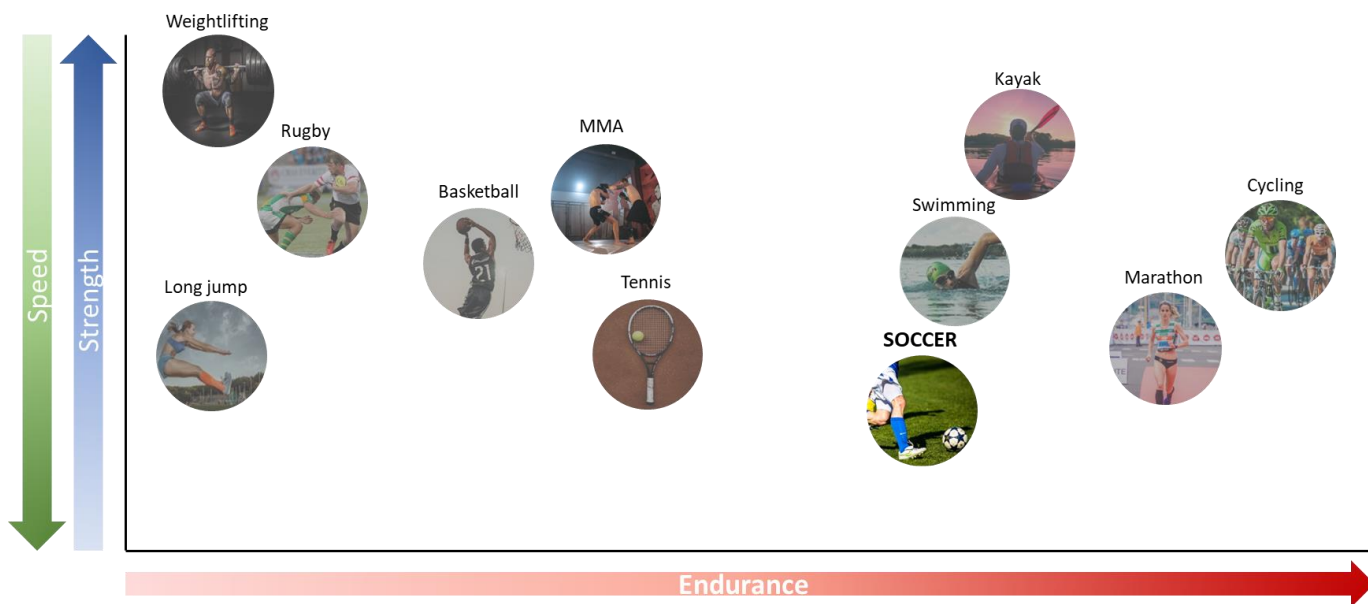


# How CreGAAtine could improve Soccer performance

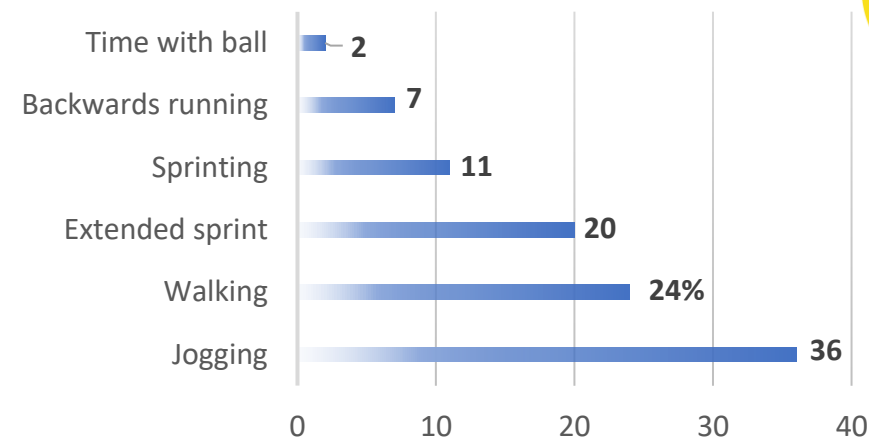
# Fundamentals/Basics of Soccer

Soccer performance is complex and depends upon a myriad of factors such as technical, tactical, mental and physiological.

Soccer is an aerobic sport, interspersed with short periods of high intensity and anaerobic actions. However, these anaerobic moments are the ones that are most important in the game.



Game actions



Stølen, T., Chamari, K., Castagna, C., & Wisløff, U. (2005). Physiology of soccer. Sports medicine, 35(6), 501-536.

Ostojić, S. (2015). *Fiziologija Fudbala*. Beograd: Data status



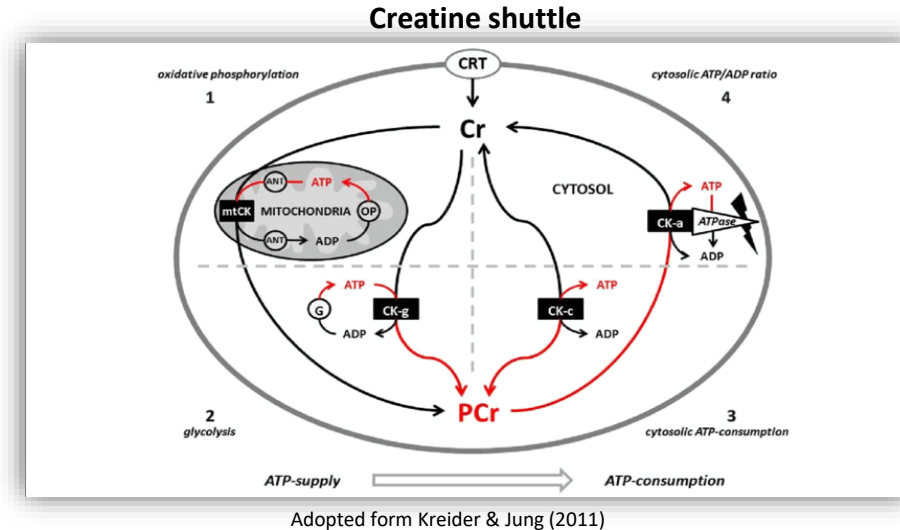
# Basics of Creatine

Creatine is a derivative of the amino acid glycine and is naturally synthesized in our body, primarily in the liver, while in smaller quantities, it can be synthesized in the kidneys and pancreas.



## Benefits of creatine

1. Improves brain health
2. Reduces risk of depression
3. Improves overall strength and power
4. Improves body composition
5. Enhance injury prevention and rehabilitation
6. Enhance recovery
7. Improves cell signaling



Creatine plays a significant role in energy metabolism as a substrate in the formation of adenosine triphosphate (ATP) in the process of adenosine diphosphate (ADP) phosphorylation in short and high-intensity activities. In the first 6 seconds of maximal intensity, 30-50% of creatine is emptied, while after 30 seconds, 80% of creatine is reduced from muscle. Creatine has much more implications not related to sport, such as the health of older adults, children's development, and implication in neurodegenerative diseases, etc.

# Creatine in Soccer



### Benefits

Repeated sprint ability	↑
Anaerobic power	↑↑
Agility	↑↑↑
Sprinting	↑↑↑
Jumping abilities	↑↑



### Considerations

Creatine could increase body weight and total body water ↓

In soccer, around 20-30% of players are non-responders ↓

### Strategies of creatine supplementation

Loading dose: 20g/day (0.3g/kg/day) for 5-7 days followed by 3-5g/day.  
Alternative strategy 0.03g/kg/day.  
There is no specific time when creatine should be consumed, but its a good strategy to consume it after the meal when glucose levels are increased.

### Practical application

Higher doses can improve the preparation period during the preseason, while players should maintain levels of creatine previously gained during the season. Creatine supplementation can augment players' training capacity (increase in load and performance) when they return to regular training after an injury, which could prevent reinjury due to the physical demands of soccer training or competition.



# Basics of Cregaatine

Creggatine is a combination of Creatine and Guanidinoacetic acid (GAA) in 1:1 ratio. GAA is creatine precursor, but it have plethora of other actions.

Cregaatine have all capabilities of creatine. What make Cregaatine so special is GAA. Its like a puzzle, GAA continues where creatine have some limitations.

- Cregaatine has more entres gates in to the muscule. Due to this property, it can increase creatine levels in muscles faster and more successfully and increase energy levels
- Cregaatine improves weaker muscle groups (upper body) probably because more excess to the cells
- Cregaatine formulation had smaller rates of non-responders (e.g. about 20-30% of creatine users are non-responders)
- Cregaatine does not affect body mass and total body water



Creatine entrence to the cell



GAA entrence to the cell



# Creatine vs CreGAAtine in Soccer



Why is cregaatine better for soccer players???

It has all the creatine capabilities but addition of GAA gives him a hump over the edge.

- ✓ Cregaatine could further improve repeated-sprinting ability
- ✓ Cregatine can improve football-specific skills (e.g. dribbling; jumping; passing; shooting)
- ✓ Cregaatine increases levels of brain creatine more efficiently than any other creatine supplement. This could influence decision-making strategies and enhance alertness
- ✓ Cregaatine can enhance endurance and reduce fatigue
- ✓ Cregaatine has antioxidant and pro-oxidant capacities
- ✓ Cregaatine will not increase body weight and total body water
- ✓ There is no need for loading phase with cregaatine supplementation



**Cregaatine is revolutionary formulation of creatine and GAA.**

**It has the potential to raise soccer performance on a higher level, and it can definitely be a game-changer.**





[www.cregaatine.si](http://www.cregaatine.si)