

English Tutorial Classes Week 12

Water Sports (Swimming, Water polo)

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Swimming

Swimming is the **self-propulsion (samopokretanje)** of a person through water, or other liquid, usually for recreation, sport, exercise, or survival.



Swimming

Locomotion (kretanje/lokomocija) is achieved through coordinated movement of the limbs (udova) and the body to achieve hydrodynamic thrust (hidrodinamički potisak) that results in directional motion.

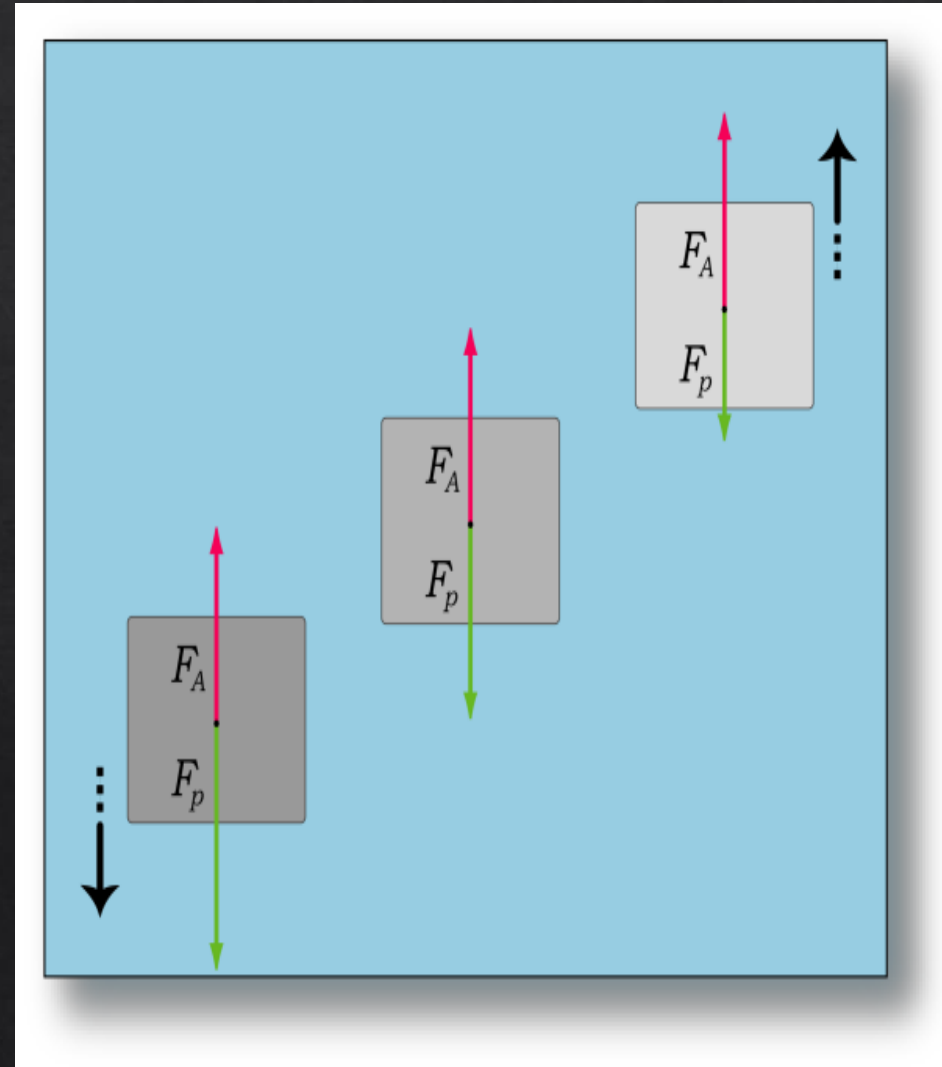


The Science Behind It

Swimming relies on the nearly neutral buoyancy (uzgon/potisak, sposobnost održavanja) of the human body. On average, the body has a relative density (gustinu) of 0.98 compared to water, which causes the body to float (pluta).

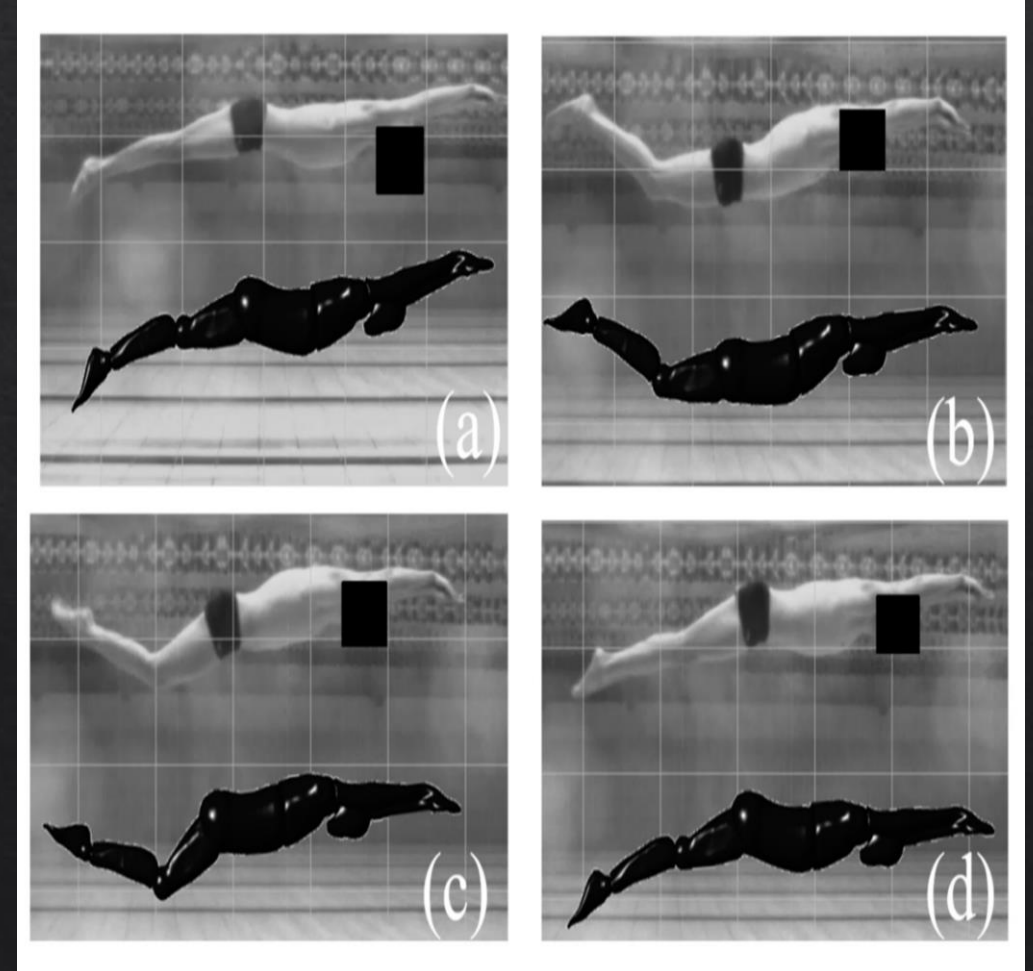
However, buoyancy varies based on body composition, lung inflation, muscle, and fat content.

Human males find it more difficult to float or be buoyant.



The Science Behind It

To be more hydrodynamically effective, swimmers can either increase the power of their **strokes** (zaveslaja) or **reduce water resistance** (otpor vode).



Front crawl

Front crawl (**kraul**), also known as the **Australian crawl** (**australijski kraul**) or **American crawl** (**američki kraul**), is a swimming stroke usually regarded as the fastest of the four primary strokes.

As such, the front crawl stroke is almost universally used during a freestyle swimming competition.



Breaststroke

Breaststroke (prsno plivanje / prsni stil) is a swimming style in which the swimmer is on their chest and the torso does not rotate (trup ostaje neokrenut).

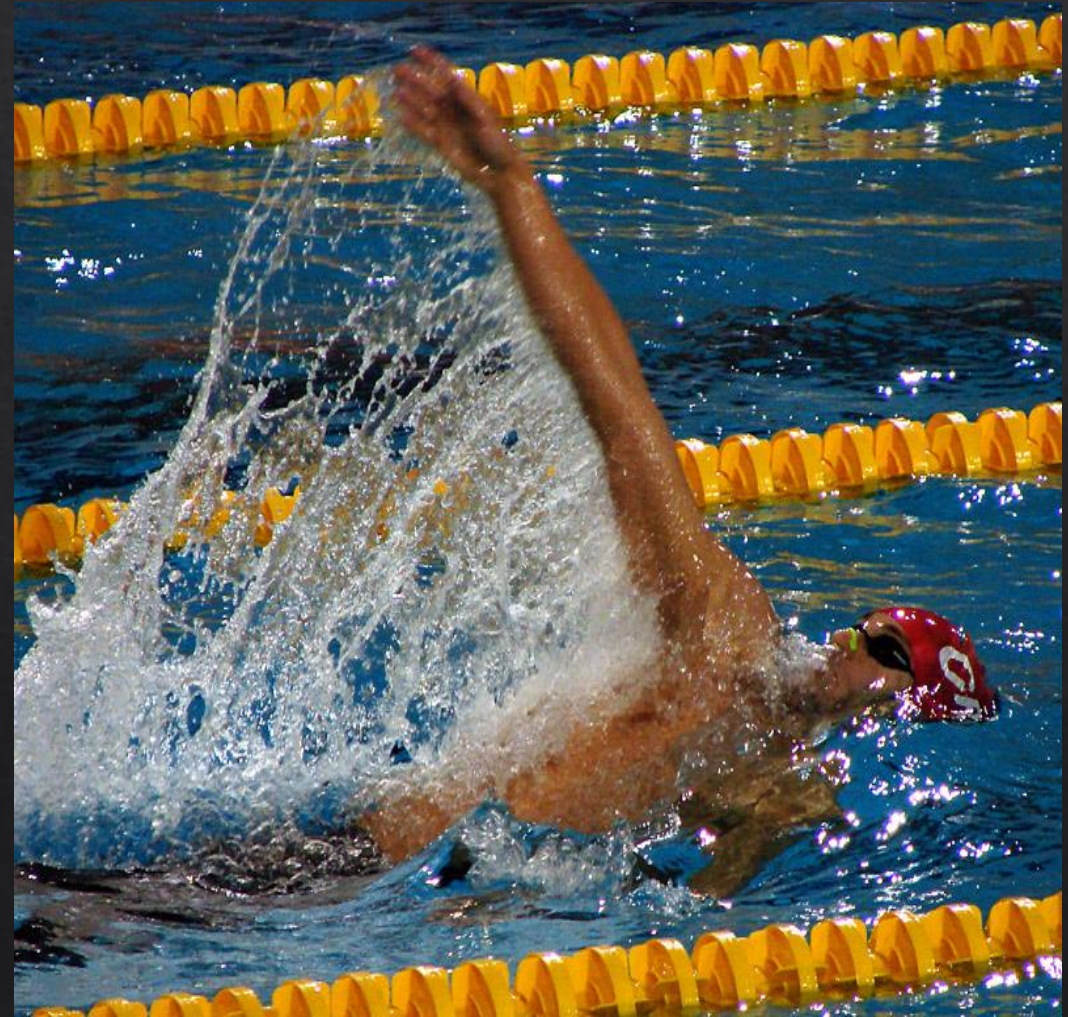
It is the most popular recreational style due to the swimmer's head being out of the water a large portion of the time, and that it can be swum comfortably at slow speeds.



Backstroke

Backstroke (leđno plivanje / leđni stil) is one of the four swimming styles used in competitive events, and the only one of these styles swum on the **back** (leđima).

This swimming style has the advantage of easy breathing, but the disadvantage of swimmers not being able to see where they are going.



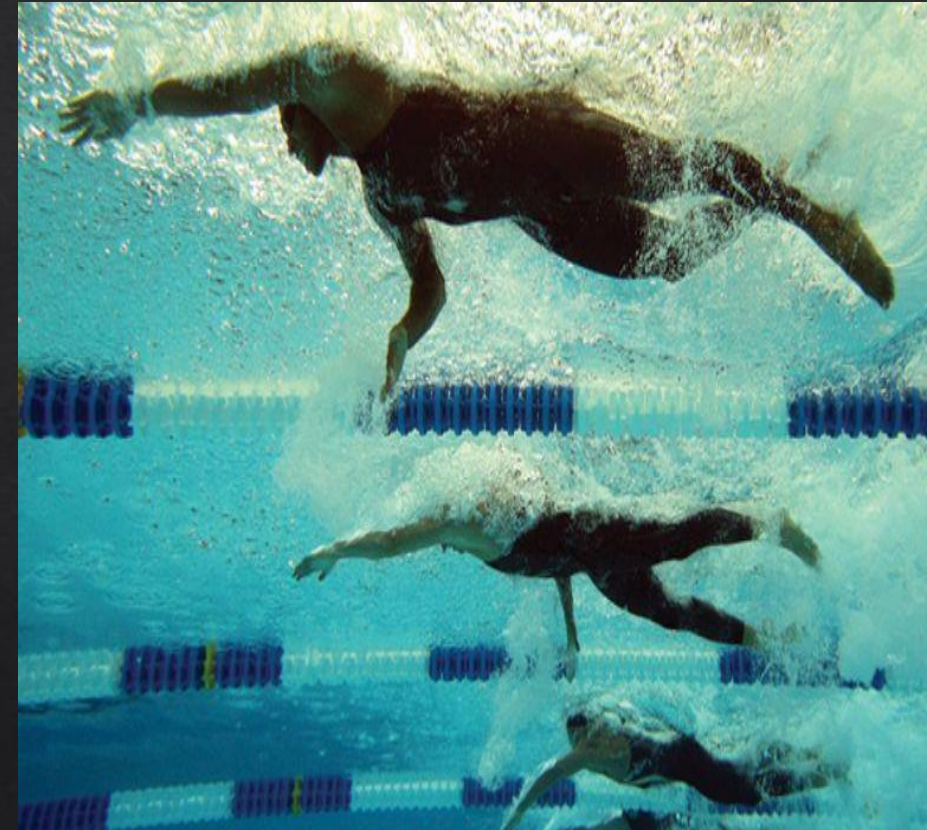
Butterfly stroke

The butterfly (delfin stil) is a swimming stroke swum on the chest (grudima), with both arms moving symmetrically, accompanied by the butterfly kick/dolphin kick (delfin udarcem) along with the movement of the hips and chest.

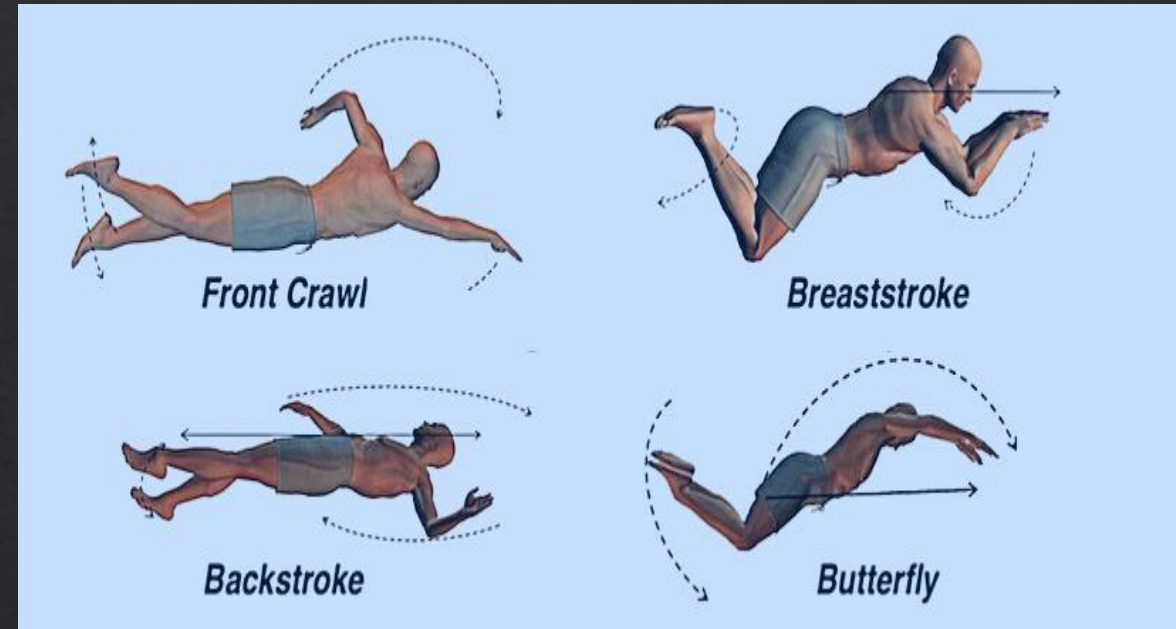


Swimming Events (takmičarske discipline)

- Freestyle (slobodni stil)
- Medley (mešoviti stil) – combination of all four strokes
- Relay (štafeta) – team event with four swimmers
- Open water swimming (plivanje na otvorenim vodama)



Stroke (zamah ruke) – arm movement in each swimming style



Breathing technique (tehnika disanja) – critical for rhythm and endurance



Turns and Push-offs (okreti i odgurivanja) – used during laps in the pool



Dive start (skok u vodu) – important in competitive races



Swim cap (kapa za plivanje)



Goggles (naočare za plivanje)



Swimsuit (kupaći kostim)



Deck (paluba): The area surrounding the pool.

Lanes (staze): Stretch of rope or wire, usually filled with round, plastic absorbers to minimize waves.

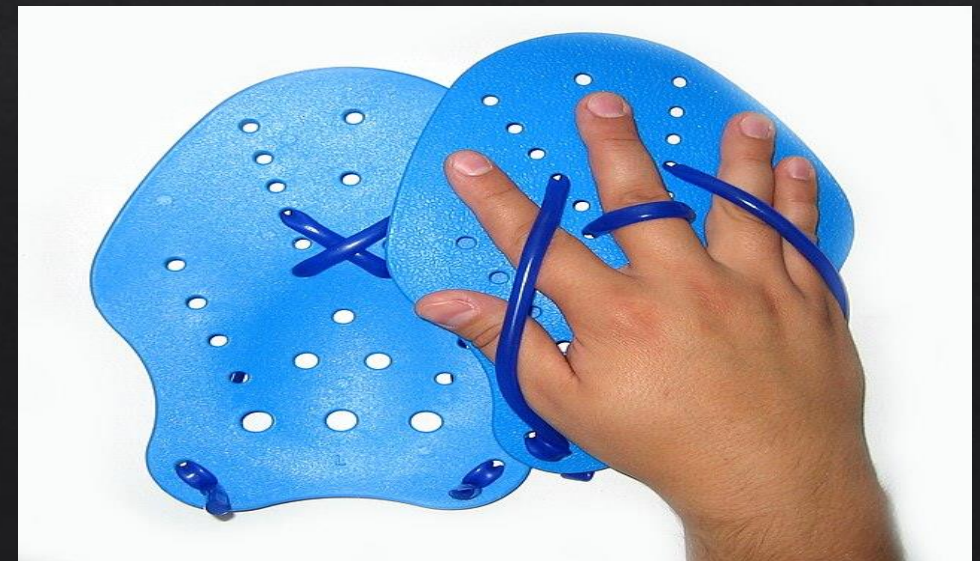
Lap (krug, plivanje od jednog do drugog kraja bazena i nazad)



Wall (zid): Place in the pool where a swimmer will start, finish, and turn during a practice.



Paddle (lopatica za plivanje): a plastic hand device that may cover a swimmer's palm and fingers to add resistance and improve stroke technique.



Fins or flippers (peraja): rubber-like devices that go on each foot to help improve kick power.



Snorkel (disalica): a device that helps swimmers breathe while keeping their head in the water.



Kickboard (plutača za noge)



Pull buoy (plutača za ruke)



Pool noodle (nudla za plivanje)



Swim ring/inflatable ring (šlauch
[„šlauch“]/guma za plivanje)



Lifeguard (spasilac)



Rescue Board (spasilačka daska)



Whistle (pišťalka)



First aid kit (kutija prve pomoći)



First Aid & CPR

Cardiopulmonary resuscitation (CPR)
(kardiopulmonalna reanimacija)

Rescue breathing (veštačko disanje)



Water polo

Water polo is a competitive team sport played in water between two teams of seven players each.

The game consists of **four quarters (četiri četvrtine)** in which the teams attempt to score goals by throwing the ball into the opposing team's goal.



Water polo

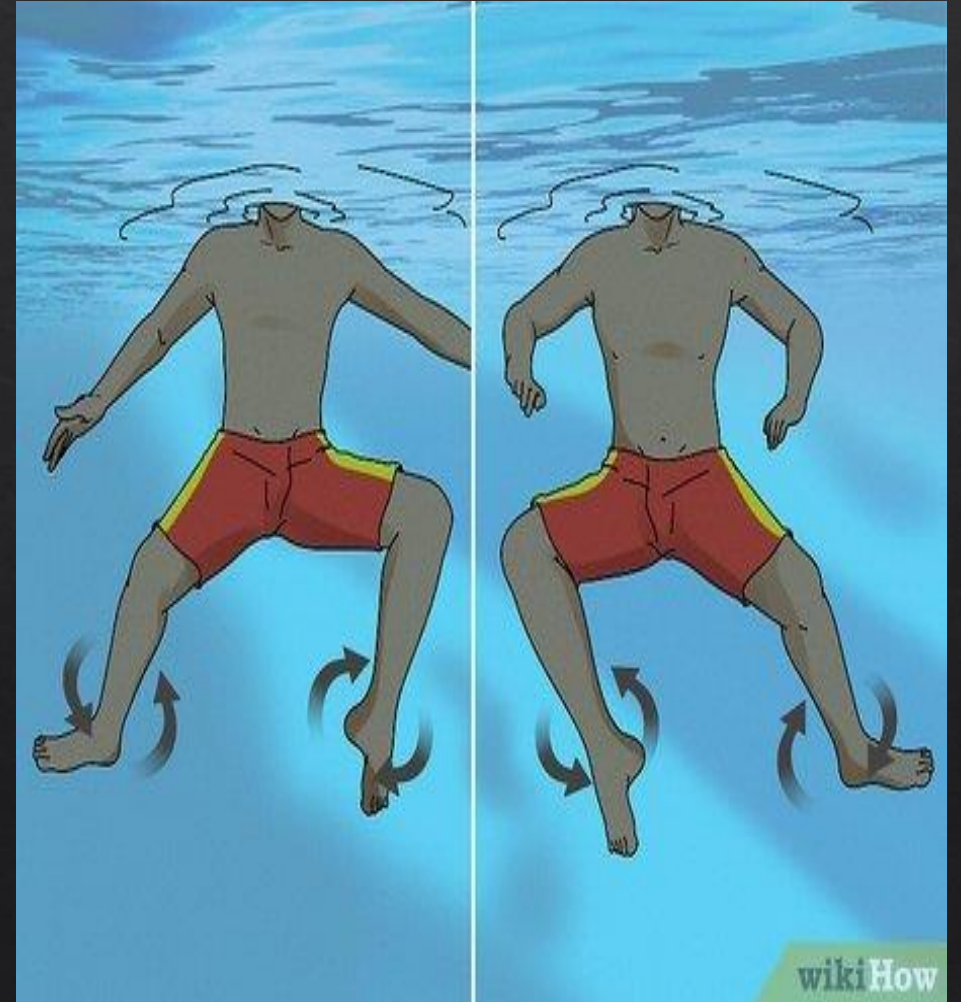
A game consists mainly of the players swimming to move about the pool, treading water (održavanja na vodi), passing the ball, and shooting at the goal.



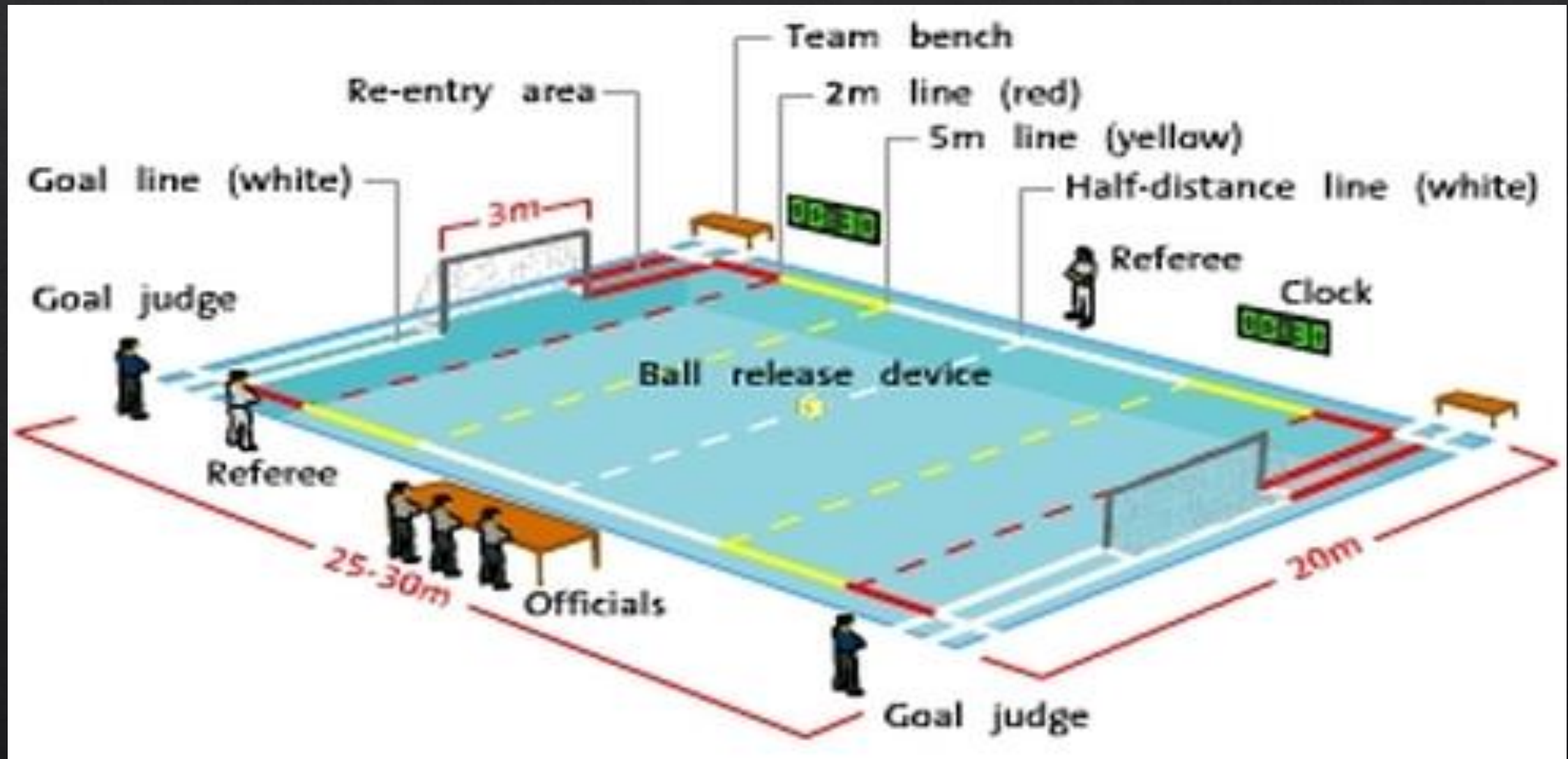
Water polo

The eggbeater kick (udarac "mućkalica") is a rotational movement of the legs (rotaciono kretanje nogu) that allows the swimmer to stay vertically afloat (uspravno plutati) without using their hands.

It's like pedaling a bicycle (kao da okrećete pedale na biciklu).



Water polo



Water polo (new rules)

RULES 2025



Major changes in the rules

FOP, Attacking, Exclusion and Second Possession time

Women:

Field of play: **25** meters

Attacking time: **30** seconds

Second possession and exclusion time: **15 seconds** (it was 20 seconds)

Men:

Field of play: **25 meters** (it was 30 meters)

Attacking time: **25 seconds** (it was 30 seconds)

Second possession and exclusion time: **15 seconds** (it was 20 seconds)

Positions

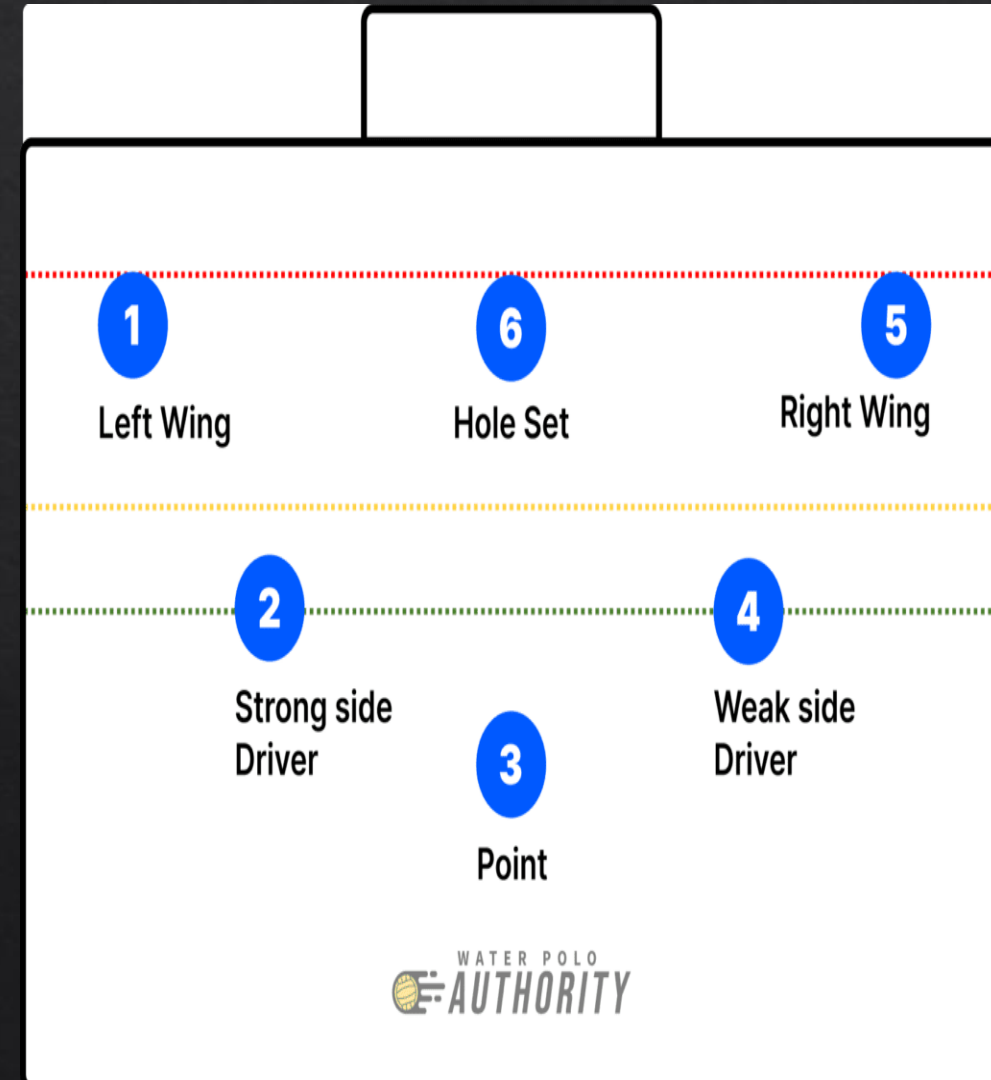
Goalkeeper (Golman)

Hole Set / Center Forward (Centar / „Sidraš“)

Wings (Krila)

Drivers (Bekovi / Spoljni igrači)

Point (Srednji bek)



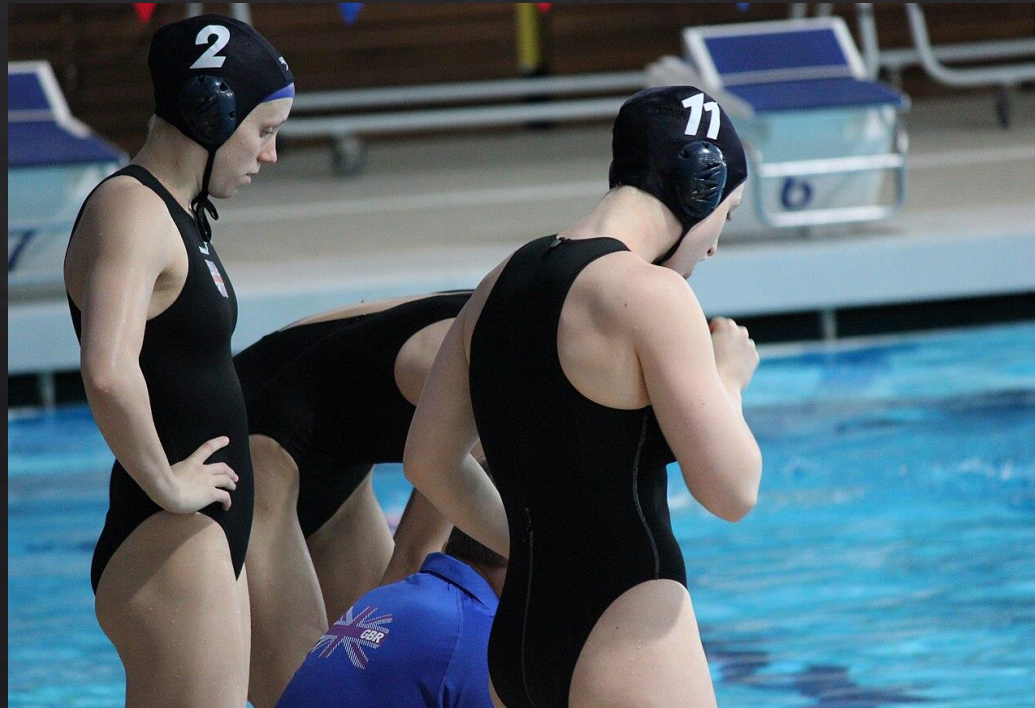
Water polo equipment

Ball (lopta)



Cap (kapa)

Swimsuit (kupaći)



Goal (gol)



Mouthguard
(štitnik za usta)



Thank you for your attention!