



Co-funded by the  
Erasmus+ Programme  
of the European Union



# ADRIATIC DIVING ERASMUS+ PROJECT



# ABOUT PROJECT:

Management in Sport, which deals with education, training, employment and volunteering in sport, is the topic that we selected as it covers our main interest, which is the education Human Resource of safety in diving.

The project focuses on safe divers and coaches in the fields of training approach, implementation of other sports and their respective cultures, safe rules and management.

The project is envisioned as an 18-months long project, involving 3 different European countries and 3 separate partners from Croatia, Italy and Serbia.

Lead organization: KSV PRIMORJE 2010, Rijeka Croatia

Partners: MR SPORT DEI FRATELLI MARCONI ASD, Rome Italy  
SERBIAN DIVING ASSOCIATION (SSVS), Belgrade Serbia



# COORDINATOR: DIVING CLUB „PRIMORJE 2010” RIJEKA,CROATIA

The Primorje 2010 diving club was established at the end of 2010 and it started its activities in June 2011, after the completion of the Diving pool within the Kantrida swimming pools complex. Throughout the summer of 2011. there were many demonstrations of diving trainings. More than 100 younger and older citizens of Rijeka (from 5 to 25 years) participated in the activities of this club. We are Rijeka's only diving organization. Our programs include beginners whom we introduce to diving through games and fun, we have recreational group doing sport for the fun of it, our masters group is split to those who dive to stay fit and impress on the beaches and those who compete. Last but not least our elite divers competing in both national and international events.

“Primorje 2010” is a non-profit organisation, our selected members of the committee board are volunteers who actively participate in every aspect of the sport; these enthusiasts invest their own time, knowledge, and most of all, their love and appreciation in helping our club grow and get better each year.

Currently we hold the count of 60 divers aged 5-60, the activities are taking place on several levels : school of diving, improving diving, competition section and masters section – “the unbreakable” who is training by 2 coaches, one female and one male.

We are members of RSS, the Croatian Association of diving, which is a member of the Croatian Olympic Committee and sport society “Primorje 08”.

# PARTNERS:

## SERBIAN DIVING ASSOCIATION, SERBIA

SERBIAN DIVING ASSOCIATION found since 1971 year affiliated with the Serbian Olympic Committee (OKS) and LEN and FINA. Throughout the year we organizes national and international events (Balkan games, Mediterranean Diving CUP (COMEN), International Belgrade Trophy (past 17<sup>th</sup> years), University games, European Junior Championships, etc.

The association includes a several clubs, with athletes divided in all age categories.

## ASD MR SPORT DEI FRATELLI MARCONI, ITALY

MR SPORT DEI FRATELLI MARCONI ASD is a sport organization affiliated with the Italian Olympic Committee (CONI) and the Italian Swimming Federation (FINI). The club organizes diving courses for able-bodied and autistic boys and girls from the age of 4 up to master divers. Throughout the year it also organizes events for its members and their families.

All activities of the association are carried out by experienced coaches and volunteers, with the support – in some occasions – of athletes' families.

The association includes a team composed of 200 athletes, athletes agonists and amateurs, divided by age categories. MR Sport is the association in Italy with the higher number of members under 15 years of age.

**MAIN OBJECTIV:** education of coaches  
safety in diving



## PRACTICAL PART:

- Basic dives on springboards
- Basic dives on platform
- Basic dry land elements

## THEORETICAL PART:

- Injuries in diving
- IMU
- Fear in diving
- Diving with dissabilities
- Mental preparation
- Basic dry land exercises



# WORKSHOPS

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# 1. WORKSHOP

BELGRADE 24. september – 26. september 2021.

- Application of IMU in different sports with reflection to Diving
- Causes and prevention of injuries in diving
- Basic dives on springboards

- Vukan Vuletić, prof.
- Marija Simić, prof.
- Stefan Marković, prof.



# APPLICATION OF IMU IN DIFFERENT SPORTS WITH REFLECTION TO DIVING

(STEFAN MARKOVIĆ)

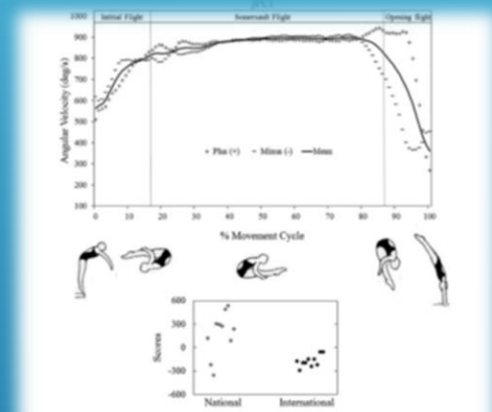


Figure 3. IPCI for the angular velocity time-series curve.  
Notes: Solid line represents the mean, + represents the positive scoring dive performances and--represents the negative scoring dive performances. The vertical lines at 17% and 87% represent the average beginning and end of the Inward Flight phase, as defined by Table 1. The lower portion of the figure represents the IPCI score for each trial (1-10) and illustrates the spread of scores for the international and national divers.

- **Complex aerial movements before entering the water**

## Understanding kinematics

- Variability of movement
- Basis for performance
- Results improvement

## Phases

- Approach
- Dive take-off
- Flight (phases)
- Water entry

## The most important aspect

- Angular kinematics

## All phases

- Temporal structure

## Limited research using IMU

- Papers by Walker et al.
- PhD thesis by Walker

## IMU placement

- Lumbosacral back
- Posterior superior iliac spine (PSIS)



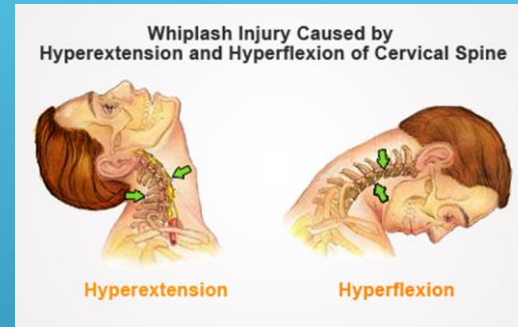
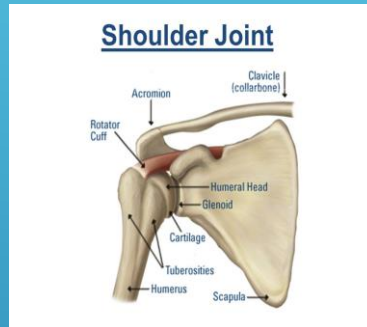


# CAUSES AND PREVENTION OF INJURIES IN DIVING

(VUKAN VULETIĆ)

## Common Diving Specific Injuries:

- Lower-extremity injuries
- Shoulder Injuries
- Elbow Injuries
- Wrist Injuries
- Cervical Spine Injuries
- Lumbar Spine Injuries

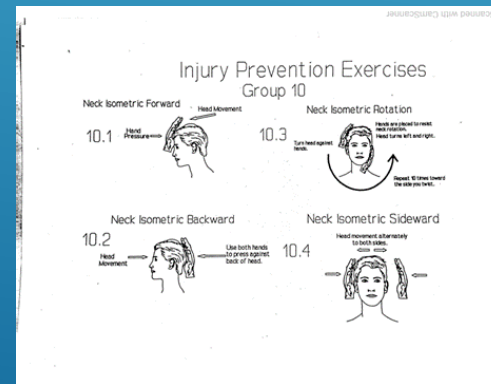
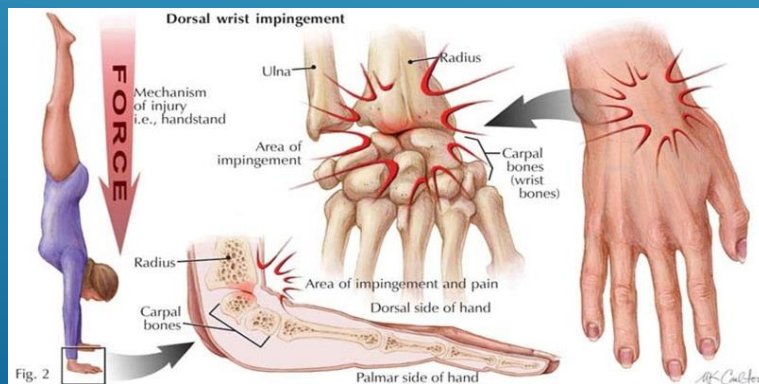


## Coach's role :

- The coach should do everything to prevent injury. Unfortunately, minor injuries sometimes occur. The coach should also be prepared for situations with serious injuries, especially spinal injuries or drowning.
- Preparation and planning are necessary to minimize the potential for injuries and to care for them if they occur.
- Provide adequate supervision
- Provide proper first aid and emergency care
- Maintain current competences

## Good conditioning - physical preparation:

- Conditioning allow wide implementation with reduce risk of misinterpretation, overtraining and injury.
- Basic condition consist from following exercises: calisthenic, weight lifting, flexibility, injury prevention exercises, and conversion exercises.



# BASIC DIVES ON SPRINGBOARDS

(MARIJA SIMIĆ)





# 2. WORKSHOP

ROME, 4. february – 6. february 2022.

- Giorgio Da Massa, psychotherapist
- Paola Flaminio, coach
- Alice Palmieri, coach
- Michele Benedetti, coach

- Fears and blocks in diving
- Diving adapted ( diving with disability)
- Basic skills on platform



► Since 2010, the MR Sport association of the Marconi brothers has been conducting Diving Adapted, a diving course for children, teenagers and young people with disabilities, suffering from disorders related to generalized developmental delay, Down's syndrome or autism spectrum disorders.

► Practicing diving favored the boys' psychomotor development and contributed to improving their awareness of their own bodies, their surroundings, and above all, their classmates. As the course progressed, as well as the prevailing fear of water and heights, we noticed a slow but steady building of team spirit. Namely, the young participants of the course began to praise each other and encourage the achieved results.

## DIVING ADAPTED

( PAOLA FLAMINIO)



# FEARS AND BLOCKS IN DIVING

( GIORGIO DA MASSA)

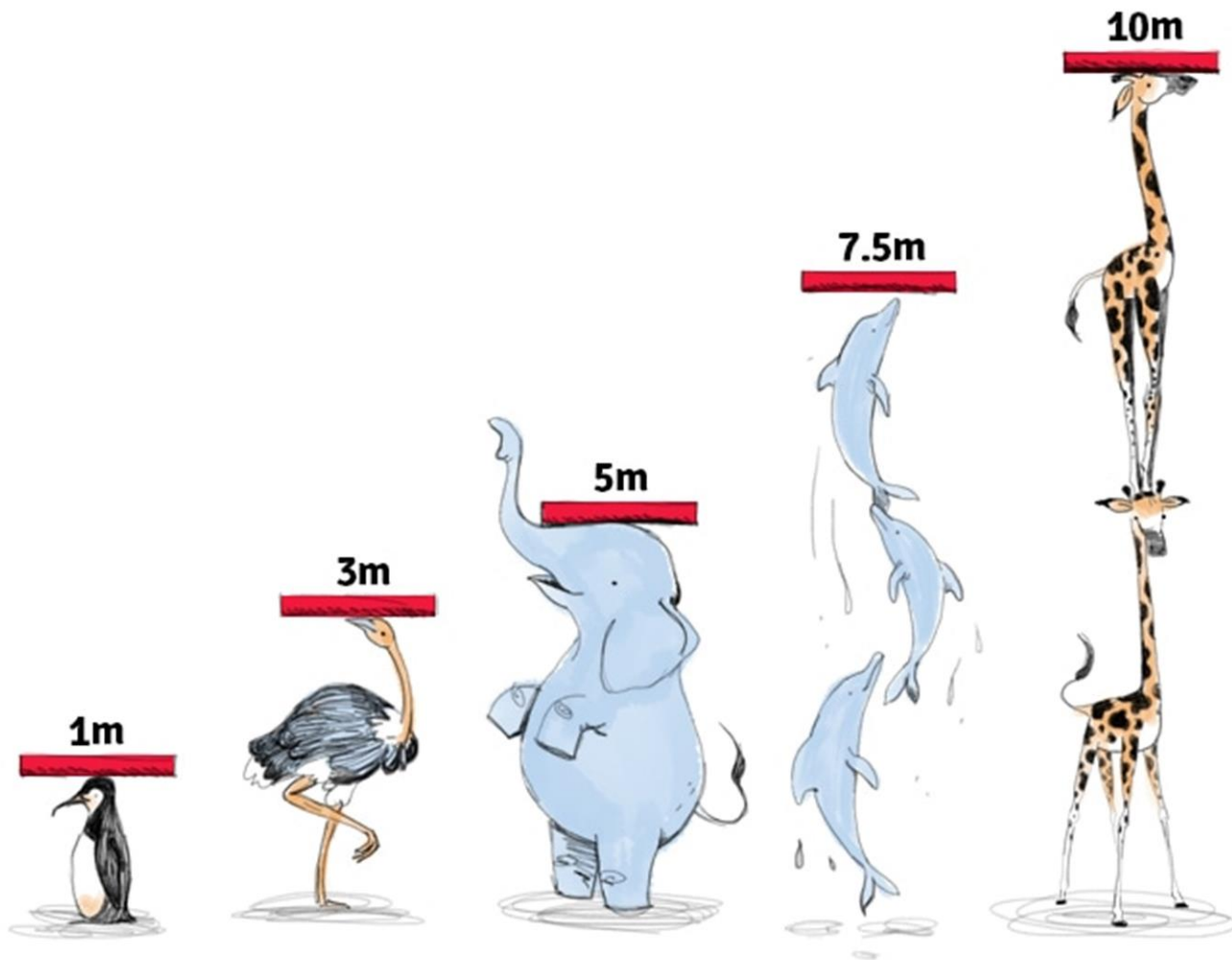
- 1.Understand that fears and blocks are NORMAL
- 2.Be patient and kind to yourself when you get stuck and lose dives.
- 3.The loss is only temporary.
- 4.Getting angry and frustrated with yourself will only make your fears and blocks worse.
- 5.Take steps backwards to work on lead-ups when you're scared.
- 6.Try to keep your focus on the FEEL of the dive and NOT your thinking

MOST FEARS AND BLOCKS IN THIS SPORT ARE A RESULT OF ACCUMULATED SCARY EXPERIENCES.



TO REACH YOUR GREATEST POTENTIAL  
YOU'LL HAVE TO FIGHT YOUR GREATEST FEAR





## PLATFORM



# 3. WORKSHOP

RIJEKA, 27. june – 29. june 2022.

- Anđelko Botica, sport psychologist – psychotherapist
- Ariana Andreić, coach
- Andrija Crnić, coach

- Sport psychology in diving
- Dryland training
- Basic preparation in gym ( dry land exercise)



# SPORT PSYCHOLOGY IN DIVING

(ANDELKO BOTICA)

- Motor learning three phase / learning methods / cognitive maturity (concrete / abstract)
- Muscle flexibility – coordination (stress-tension-stiffness)
- Physiological arousal regulation ( inverted U curve)
- Concentration – focus ( external-narrow), automatism, anchoring
- Mental training (presentation / visualization)
- Self – confidence
- Motivation
- Interpretation of the situation – mental structure – M-E-P



## PSYCHOLOGICAL READINESS PROGRAMMING

- Morning – breathing exercises
- During the day – visualization / presentation
- Before practice – focus exercises
- Warming up – exercises to regulate physiological arousal / muscle tension / presentation
- Performance – check-in and self regulation / self-control rfa, muscle relaxation, (anchoring)
- After practice – oxygen filling, stretching, assimilation (performance analysis)

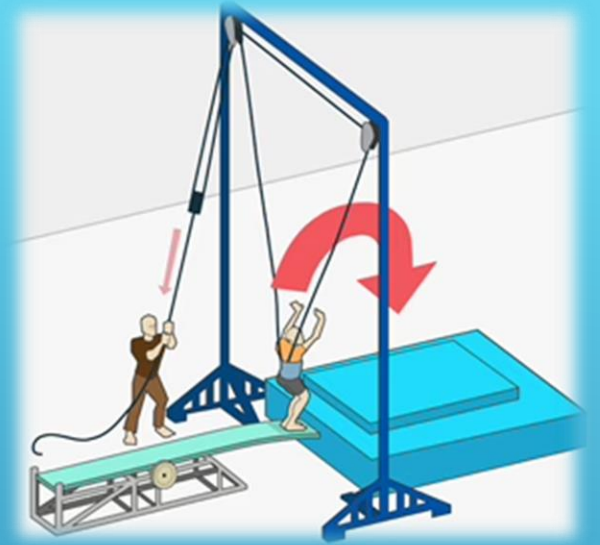
► *Dryland in diving is not only used for warm up, but also for improving physical strength and technical accuracy.*

► Drayland training:

► Warm up - A preparation of the body for physical exertion or a performance.  
Prevention of muscle cramps and injury due to overexertion.

► Physical conditioning - Athlete must be in peak physical condition to perform at their best at the right time.  
Different sports need very different physical training programs.

► Technical skills -Technical skills are how athletes in different sports move their bodies to achieve certain targets. Every sport has its own set of technical skills.



# DRYLAND TRAINING

(ARIANA ANDREIĆ)





## Dryland advantages

- **Efficiency – time, repetition:**
  - 1-meter diving board - one skill every minute at a rapid pace
  - 3-meter diving board - one skill every two minutes
  - **dryland diving board - four skills every minute, or one every 15 seconds**
- **Segmentation of skills:**
  - training can be conducted in much smaller increments, teaching athletes how to land on their feet, back, seat, stomach and hands and knees
  - safer training environment allowing for more refinement –
  - skills in diving that are much easier to isolate and practice on the dryland include: the hurdle; arm swing; balance on the end of the board; body positioning on takeoff; spotting; and kick-outs
- **Builds confidence and lessens the fear**

## Technical skills

- Areas in diving technique include:
  - hurdle step, arm-swing-and-reach on back and reverse rotation, chin position on back and reverse twists, kick out on front tuck rotation, T-arm position on front and inward come out, save on back entries
- **HOW?**
- Acrobatics-tumbling), trampoline, dry springboard, rigs, simulations, choreography

## Physical conditioning

### 1. General motor skills

- Strength
- Flexibility
- Endurance
- Speed
- Power



## Physical conditioning

### 1. Specific motor skills

- *body and legs tension - esthetics and execution*
- *explosive strenght* (different from absolute)
- *agility*



## Warm up

- General warm up
  - *running, walking, standing, plyometrics, acrobatic elements*
- Specific warm up
  - *aerobatics, simulations, stretching, ballance*



## Equipment





# HARD CONDITIONS AND HOW TO HANDLE THEM









