AquaPrimorje

UPUTSTVA

Šta Erasmus+ projekat AQUAPRIMORJE?

Sport, generalno, može biti iskorišćen kao alat za unakrsnu promociju edukacije, zdravlja, uključivanje, medjukulturni dijalog, razvoj i mir. Ispoljava važne vrednosti, kao što su: timski duh, solidarnost, tolerancija i ferplej, doprinoseći ličnom razvoju i ispunjenju.

Ove, kao i mnoge druge vrednosti, su izvorni principi strane posmatranja EU na sport. Kao što BELI PAPIR kaže sam po sebi, sport je oblast ljudskih aktivnosti koja u velikoj meri interesuje gradjanje EU i ima ogroman potencijal za zbližavanje svih nas zajedno, da dopre do svih, bez obzira na godine ili drutveno poreklo.

Kroz svoju ulogu u formalnom i neformalnom obrazovanju, sport pojačava ljudski kapital. Vrednosti prenete kroz sport mogu pomoći u razvoju znanja, motivacije, veštine i spremnosti na lični napor. Vreme provedeno u sportskim aktivnostima u školi ili na fakultetu pojačava zdravstvene i edukacione osobine koje treba unaprediti.

Menadžment ljudskih resursa u sportu, koji se bavi edukacijom, treningom, zaposlenjem i volontiranjem je tema koju smo izabrali jer obuhvata naš primarni interes, a to je edukacija i mobilnost trenera u sinhronom plivanju.

GLAVNI CILJ

Edukacija trenera

na polju pristupa treningu

Koreografija i muzička interpretacija

Ishrana i povrede u sinhronom plivanju

Tehnički elementi i figure

KOORDINATOR

HRVATSKA, KLUB SINHRONOG PLIVANJA PRIMORJE AQUA MARIS

KSP PAM postoji kao nezavisan od 1996, i neprofitabilna je organizacija. Naši članovi upravnog odbora su volonteri koji aktivno učestvuju u svakom aspektu sporta. Ovi entuzijasti ulažu sopstveno vreme, znanje, i najbitnije ljubav i zahvalnost u pomoći da naš klub raste i biva bolji iz godine u godinu.

Godinu dana nakon nezavisnog osnivanja, organizovali smo prvo, i još uvek jedino medjunarodno takmičenje u sinhronom plivanju u Republici Hrvatskoj. Takmičenje se uspešno oranizuje od 1997. i ove godine ćemo ponosno organizovati 19. “Primorje Sinhro Kup”.

Pored medjunarodnog takmičenja, pre 7 godina spo započeli još jednu tradiciju, koja je strastveno evoluirala do vrhunca naših mogućnosti: tradicija dva godišnja doba, koja obuhvata dva tematska nastupa sinhronog plivanja. Jedno leti, a drugo zimi.

Trenutno, imamo broj od 110 plivačica od 4 do 20 godina, 4 edukovana trenera i 5 počasnih trenera; ugostili smo 3 različita trenera iz Rusije; jedan od njih je prisutan već 14 godina kod nas, ove godine smo pozvali gosta trenera (Olimpijska plivačica Belorusije) koja može pomoći našim trenerima i pružiti neko novo iskustvo našim plivačicama.

Članovi smo RSS, Hrvatske Asocijacije Sinhronog plivanja, koja je clan Hrvatskog Olimpijskog Komiteta. Naše glavno administrativno telo je kancelarija sekretara, sa stalnim zaposlenjem, koji koordinira svime na dnevnom, mesečnom i godišnjem nivou. “Primorje Aqua Maris”je jedini klub sinhronog plivanja u Hrvatskoj sa administrativnom hijerarhijom.

BUGARSKA

Bugarsko udruženje za sportski razvoj

Ova organizacija je osnovana 2010. god kao neprofitabilna organizacija za javnu korist posvećena razvoju bugarskog sporta i povećanju sportske kulture u Bugarskoj. Glavni ciljevi BDSA: oživljavanje sportske kulture, volontiranje u sportu, edukacija kroz i u sportu, dobro vladanje u sportu, integracija kroz sport i veštine budućnosti i preduzetništva. Kako se sport bazira na ambiciji, emociji i inspiraciji, iniciran od naroda za narod, sector treba da se bazira na ličnim ubedjenjima onih koji donose odluke za integritet, posvećenost i pravednost kao osnovnim načelima "FAIR PLAY", timskog rada, discipline, jednakog početka i nediskriminacije.

Tim koji radi na razvoju Bugarskog sporta je motivisan, kreativan i pun inovativnog duha da poboljša sportsku kulturu u Bugarskoj. Članstvo BDSA je volontersko i asocijacija uključuje fizička i pravna lica koja su voljna da pomognu razvoju sporta vremenom, idejama, naporom ili finansijskom podrškom. BDSA takodje organizuje razne dogadjaje u sferama: preduzetništva, gradjanstva i aktivnosti društva. Tim u organizaciji se sastoji od vise profesionalaca iz različitih sfera: sportski stručnjaci, medijske ličnosti, profesori, novinari i drugi.

Stalni član ISCA – medjunardna organizacija sporta i kulture, WORLD SPORT PACIFIC federacije, Nacionalna organizacija "Zdravlje, Zaštita" – Bugarska.

Priznanja i nagrade:

- "European Everyday of Sport" – projekat je označen kao uspešna priča i dobra praksa od strane direktorata – generalna edukacija, mladi, sport i kultura od strane Evropske komisije u Julu 2018.
- "Vitamin S(port)" – projekat koji je nagradjen "Znakom kvaliteta" od strane Nacionalne agencije Erasmus+ Bugarske u decembru 2018.

Bugarsko udruženje za sportski razvoj je primilo nagradu od ProSport organizacije za celokupni doprinos proširenja pristupa sportu u Bugarskoj, u kategoriji "Gradjanska organizacija" – decembar 2018.

SRBIJA

Savez za sinhrono plivanje Srbije

Sinhrono plivanje u Srbiji beleži prvo pojavljivanje 1968. godine . U ovom periodu, bazen "Tašmajdan" je ugostio takmičare u sinhronom plivanju, predvodjene Vukašinom Vuletićem. Prva zvanična škola sinhronog plivanja je nastala 1973. na bazenu "25.MAJ", predvodjena Franc Senicom. Sve do 1984. ovo je bio jedini mogući način da se učestvuje u sinhronom plivanju u Beogradu, u bivšoj Jugoslaviji. Nova grupa je osnovana 1986. Godine pod imenom "Sirena" u Kruševcu. Dve godine kasnije je osnovan klub za sinhrono plivanje "Banjica", a 1989. je osnovan klub za sinhrono plivanje "Tašmajdan" koji je imao takmičare.

Od 1973. do 1995. godine sinhrono plivanje postoji kao deo Plivačke federacije Jugoslavije. Prvo nacionalno prvenstvo u sinhronom plivanju je održano 1993. god i organiovano je od strane Plivačke federacije Jugoslavije. Odmah posle ovog nacionalnog takmičenja, nastala su još 4 kluba: klub za sinhrono plivanje "Vračar" u Beogradu, "Šabac" u Šapcu, "TENT" u Obrenovcu i "Niš" u Nišu.

Danas, Savez za sinhrono plivanje Srbije broji 13 aktivnih klubova:

- "Banjica", Beograd
- "25.Maj", Beograd
- "Delfin", Beograd
- "Novi Beograd", Beograd
- "Tašmajdan", Beograd
- "Vračar", Beograd
- "11. April", Beograd
- "TENT", Obrenovac
- "Niš", Niš
- "Sirene", Niš
- "Spin", Niš
- "Radnički", Kragujevac
- "Borac", Čačak

HRVATSKA

SPORT VIV

NGO SPORT VIV je osnovan 2015. god sa ciljevima: promocija civilnog društva i zaštita ljudskih prava, naročito kod dece i omladine sa fokusom na sport i aktivnosti koje su vezane za sport i sportsku edukaciju; podići svest mladih ljudi i promovisati vrednosti jednakosti društva za sve gradjane, naročito promocija jednakosti polova, priznavanje prava i integracija u društvo osoba sa deformitetom i borbi protiv svih vidova nasilja, naročito prema nasilju medju polovima, svih vrsta socijalnog isključivanja, diskriminacije i stereotipa; podići svest mladih ljudi i promovisati kvalitet života kroz promociju sporta u životima mladih ljudi i kvalitet trošenja slobodnog vremena, posvećenost ekologiji i održivom razvoju i borba protiv svih zavisnosti i dopinga.

Neformalna edukacija i zaposlenost mladih ljudi i marginalizovane grupe; promocija zdravlja za marginalne/ranjive grupe; promocija prava ljudi sa posebnim potrebama i drugih marginalizovanih/ranjivih grupa; povezivanje i postojanje društvenih organizacija na lokalnom, regonalnom, nacionalnom i medjunardnom nivou, da rade sa zajedničkim ciljem: ohrabrivanje, koordinacija i organizacija sportskih i drugih dogadjaja, kako bi se sačuvalo kulturno nasledje i razvio amaterski sport; sprečavanje nasilja, delikventnosti i drugih oblika neprihvatljivog ponašanja dece i omladine organizujući sportske aktivnostii radionice; organizujući ekološke i reakreativne kampove i izlete u prirodi koji će sadržati ekološke, rekreativne, kreativne i druge grupne aktivnosti koje treba sprovesti u programe prevencije kod mladih.

Aktivni smo u radu sa decom i omladinom. Učestvujemo i organizujemo rekreativne sportske dogadjaje za sve gradjanje bez obzira na njihove godine i socijalnu pozadinu. SPORT VIV okuplja stručnjake u podizanju svesti za sve gradjanje promovišući vrednosti društvene jednakosti prilike za sve gradjane kroz sportske aktivnosti. Pre svega, SPORT VIV okuplja stručnjake iz svih sportova (vodeni, sportovi sa loptom, atletika, itd.) Što se tiče širenja, koristimo digitalne medije, socijalne mreže, PR, širenje kroz naše mreže, organizacija lokalnih dogadjaja. Takodje, promovišemo i sport za ljude sa invaliditetom i već smo započeli saradnju sa Zagrebačkom sportskom organizacijom za ljude sa invaliditetom.

ANALIZA SITUACIJE

U

ZEMLJAMA

PROJEKTA

ISTRAŽIVANJE

Istraživanje je proizvedeno od strane koordinatora projekta i ispunjeno u saradnji sa klubovima za sinhrono plivanje iz Bugarske, Srbije i Hrvatske.

Povrede u Sinhronom plivanju

Tehničke veštine (Elementi i Figure)

Specifične metode vežbanja

POVREDE U SINHRONOM PLIVANJU

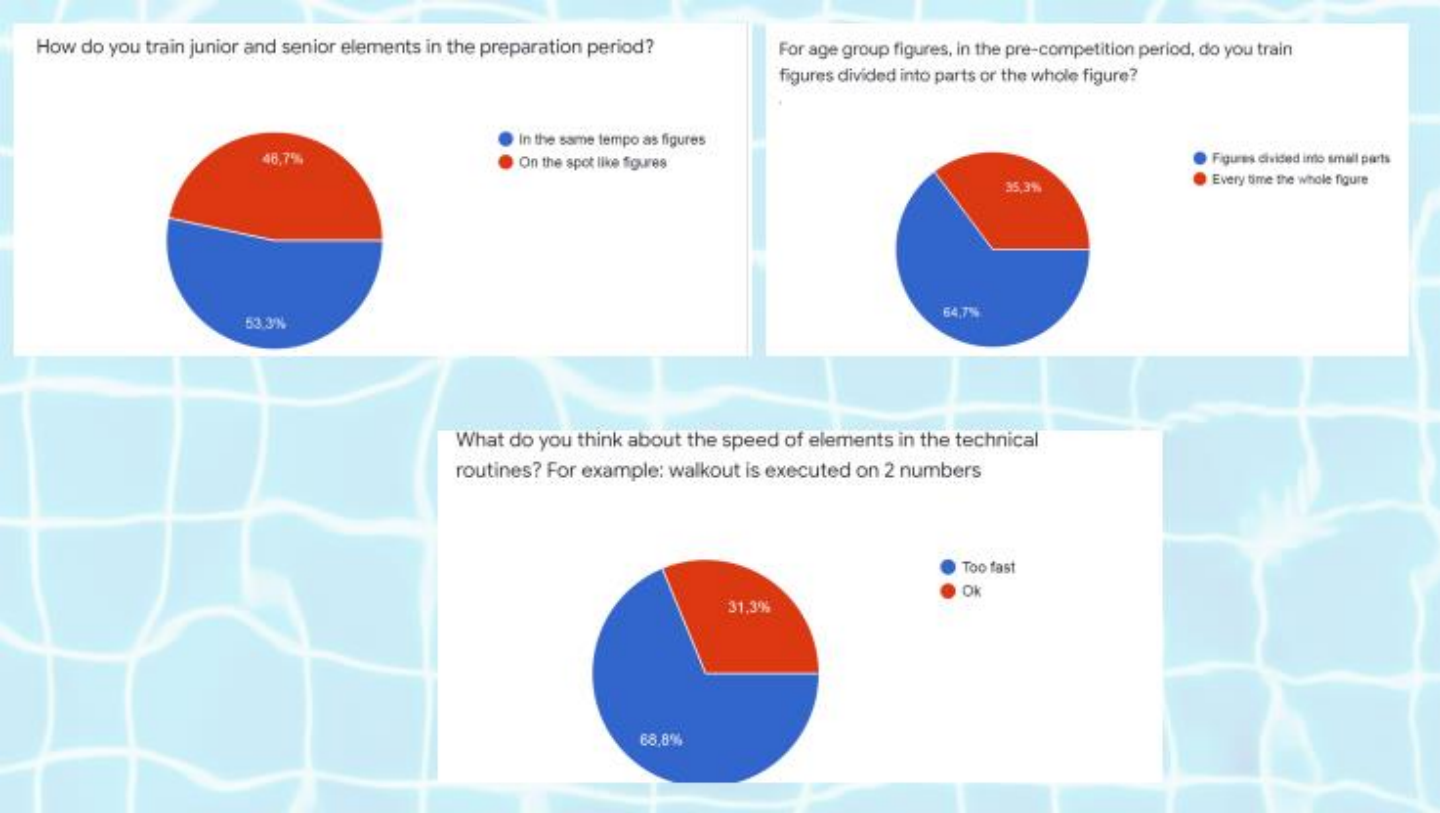
REZULTATI ISTRAŽIVANJA

Rezultati istraživanja su pokazali da je situacija medju svim članovima projekta slična. Naime, svi su se složili da tokom godina, povrede postaju česte u sinhronom plivanju. . glavni razlog tome je što sport brzo napreduje, i od plivačicase očekuje da imaju sve vise teških elemenata, koji zahtevaju mnogo sati treninga, što povećava mogućnost povrede.

Shvatili smo da povrede najčešće dolaze u dobi od 13 do 15 godina, koji je ustvari period kada plivačice počinju sa napornijim procesom treninga i povećavaju broj sati treninga, počinju da koriste tegove kao teret i priključuje se treninzima i takmičenjima reprezentacije. Po očekivanjima, najčešće povrede su: ramena, ledja, kolena. Ova tri područja su ona koja se najviše koriste u sinhronom plivanju.

Dok je koleno konstantno aktivno kroz škare, do povreda ramena i ledja dolazi usled akrobatskih elemanata koji zahtevaju ekstremnu snagu i fleksibilnost. Najveći problem je uklopiti plivačicu u trenažni proces, posle rehabilitacije, i vratiti je u formu, s obzirom da plivačice rade identične stvari kada nastupaju.

TEHNIČKI ELEMENTI



REZULTATI ISTRAŽIVANJA

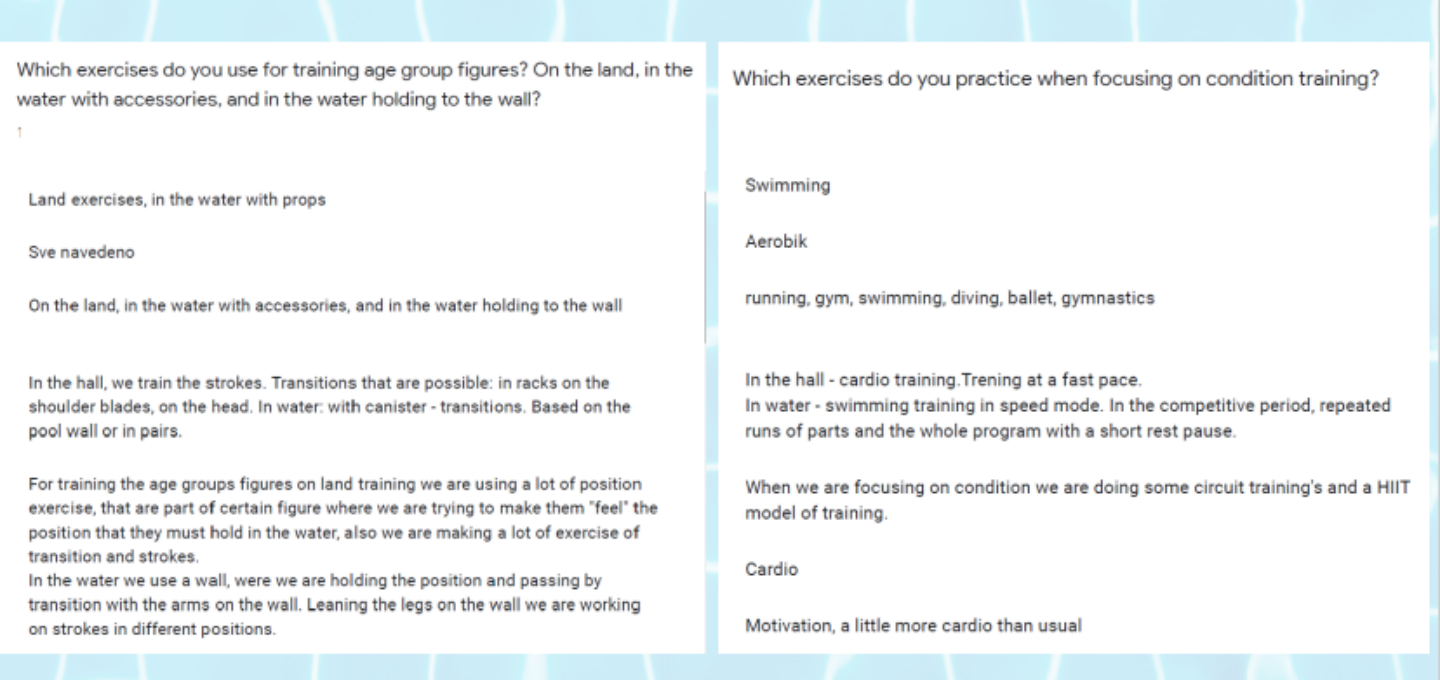
U istraživanju što se tiče tehničkih elemanata i figura, postavili smo pitanje povezano sa metodologijom elemenata: koliko brzo se izvode, koliko je potrebno naučiti plivačicu da izvede elemente i figure.

Figure i tehnički elementi su propisani FINA pravilima i plivačice moraju da izvedu precizno definisanu poziciju i tranziciju. Postoje nove figure u svakoj kategoriji do prelaska u juniorsku kategoriju gde postoje i tehnički elementi.

Pokazalo se da svi učesnici istraživanja u pripremnom periodu vežbaju sporije, kao što su figure, tako da kasnije kad nastupaju u tehničkim sastavima, izgledaju bolje i preciznije.

Što se tiče figura, u pripremnom periodu, svi koriste tehniku gde je figura podeljena na vise delova, pozicije i tranziciju. Vežbaju se mali delovi, i kako se nastup više približava, vežbaju se kompletne figure.

SPECIFIČNE VEŽBE I METODE



Which exercises do you use for training age group figures? On the land, in the water with accessories, and in the water holding to the wall?	Which exercises do you practice when focusing on condition training?
Land exercises, in the water with props	Swimming
Sve navedeno	Aerobik
On the land, in the water with accessories, and in the water holding to the wall	running, gym, swimming, diving, ballet, gymnastics
In the hall, we train the strokes. Transitions that are possible: in racks on the shoulder blades, on the head. In water: with canister - transitions. Based on the pool wall or in pairs.	In the hall - cardio training.Trening at a fast pace. In water - swimming training in speed mode. In the competitive period, repeated runs of parts and the whole program with a short rest pause.
For training the age groups figures on land training we are using a lot of position exercise, that are part of certain figure where we are trying to make them "feel" the position that they must hold in the water, also we are making a lot of exercise of transition and strokes. In the water we use a wall, were we are holding the position and passing by transition with the arms on the wall. Leaning the legs on the wall we are working on strokes in different positions.	When we are focusing on condition we are doing some circuit training's and a HIIT model of training.
	Cardio
	Motivation, a little more cardio than usual

REZULTATI ISTRAŽIVANJA

Sinhrono plivanje je kombinacija baleta, plesa, akrobatike i plivanja, tako da je trening jako kompleksan zato što mora sadržati sve ove elemente. Od plivačica se očekuje da budu jake, ali takodje i elegantne. Ekstremno je važno da vežbaju snagu i na suvom treningu i u vodi.

S obzirom da ostoje različite metode treninga, cilj istraživanja je da razume kako se treninzi održavaju i da shvati koji metod se najviše koristi za svaki deo treninga.

Iskustvo je pokazalo da za snagu plivačice, uglavnom svi koriste vežbe snage, koje su bazirane na telesnim vežbama ili vežbama u teretani, u zavisnosti od starosne dobi.

Svi treninzi istezanja se koriste da se razvije fleksibilnost, ali najdominantnije su vežbe aktivnog i dinamičnog istezanja. Dok se više metoda koristi za fitnes, od vežbi aerobika, kardio treninga, običnog tračanja i plesa.

IZVEŠTAJ SA RADIONICA

BEOGRAD, SRBIJA

MODUL 1

Četvrtak 22.04. – Nedelja 25.04.2021.

Ana Montero – tehnički elementi za junior i seniore

DR. Marija Anđelković – zdravlje i ishrana

DR. Tamara Stojmenović i DR. Nenad Dikić – povrede, prevencija i rehabilitacija

Rodjena je 07.11.1980. godine. Španski plivački trener i bivša sinhrono plivačica koja se takmičila na Letnjim Olimpijskim igrama 2004. godine, gde je bila član Španskog nacionalnog tima koji je završio kao četvrti u discipline tim.
Takodje je osvojila srebrnu medalju na Svetskom prvenstvu, kao i tri medalje na Evropskim prvenstvima tokom svoje karijere.
Nakon povlačenja, priključila se Kraljevskoj Španskoj plivačkoj federaciji kao trener, u startu na juniorskom nivou, pre nego što je postala Tehnički direktor nacionalnog tima u Seprembru 2012.

- **TEHNIČKI ELEMENTI**
- **ANALIZA POKRETA**
- **METODOLOGIJA UČENJA**

SOLO TECHNICAL ROUTINE

SOLO	1st elem/duration/ Before/after	2nd elem/duration/ Before/after	3rd elem/duration/ Before/after	4th elem/duration/ Before/after	5th elem/duration/ Before/after	Pool coverage	Extra Hybrids	Total Music Time
RUS	26"/3"/nothing-easy/Figure Hdif	53"/13"/nothing-easy/Figure-normal	1'18"/13"/good propulsion/nothing	1'38"/13"/figure-easy to good table-top/nothing	2'05"/5"/nothing-easy/short figure-transition	3 laps	_1together with 1st elem	2'13"
SLV	7"/3"/nothing/Short Fig-easy	26"/13"/nothing/Short Fig-Transition	1'13"/10"/good prop/nothing	1'36"/15"/transition/ nothing	2'00"/6"/nothing/ Short Figure with ascending spin	3 laps	_1 after 2nd elem Medium diff+barracuda _Barracuda spin360° _Short Fig-transition	2'14"
UKR	31"/3"/Short Fig with spin 720/Short Fig-transition	43"/10"/nothing/Short figure with split p	1'00"/11"/nothing/ nothing	1'26"/11"/diff transition to vert/short figure-transition	1'50"/5"/nothing/ Medium Hybrid with rotation	3 laps	_Barracuda Spin720	2'10"
AUT	12"/4"/nothing/Medium Figure - side twist	30"/14"/nothing/Short Fig-Transition split p	58"/12"/nothing / nothing	1'30"/12"/Nothing/Medium Figure with ascending 360	1'59"/4"/nothing/ Medium Fig with ascending 720 + split	3 laps	_Barracuda Arch _Short Figure with sv	

SOLO ELEMENT 1

ELEMENT 5

CONCLUSIÓN:

We have 2'13" and aprox 1'00 is elements = panel 3.

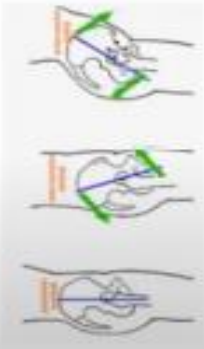
Need to do three laps aprox (75m) in aprox 1'13" because elements are static.

Elements already show many of our habilities

Need to "feed up" Impresión panel.

REMEMBER

- Hip Joint:



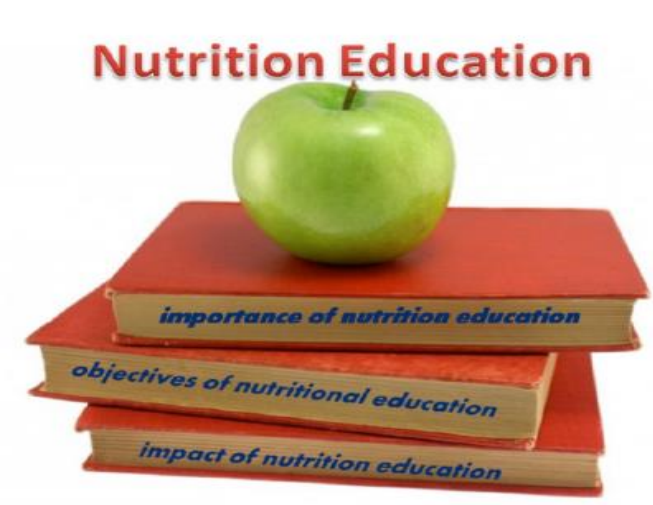
DIFFERENT EXERCISES FOR GENERAL ELEMENT PRINCIPLES

DIFFERENT EXERCISES FOR GENERAL ELEMENT PRINCIPLES

IMAGES CLEAR IN ATHLETES AND COACHES MIND

Dr spec. med. Marija Anđelković – diplomirala 2007. godine na Medicinskom fakultetu u Beogradu.iste godine počela sa radom u ADAS kao nezavisni consultant za test grupu i izuzeće terapeutske upotrebe. Kao član WADA, bila je učesnik Olimpijskih igara u Vankuveru 2010., Londonu 2012., Azerbejdžanu 2015., Rio de Žaneiru 2016., kao i na nekoliko Evropskih i Svetskih prvenstava. Tokom 2012., završila je dvogodišnji kurs o Zdravlju i ishrani u sportu u Medjunarodnom Olimpijskom komitetu.
Od 2011. dr Marija Andjelković koordinira timom za Sportsku ishranu i suplementaciju za preko 200 elitnih sportista Srbije. Doktorar je završila 2016. godine na Medicinskom fakultetu u Kragujevcu. Tokom 2017. postala je professor na Fakultetu za sport i medicine. Aktivni je član Asocijacije sportskih lekara Srbije; autor i ko-autor nekoliko objavljenih knjiga i naučnih radova o sportskoj medicini i ishrani. Učesnih nekoliko svetskih i evropskih konferencija, primarne teme o doping u sportu, kao i o ishrani i suplemntaciji.

- **Ishrana kod sportista**
- **Jelovnik i suplementi**
- **Neuhranjenost**




EASY TRAINING/WEIGHT MANAGEMENT
FATS
1 Teaspoon
Avocado
Oils
Nuts
Seeds
Cheese
Whole Grains
Pasta
Rice
Potatoes
Cereals
Breads
Legumes
Weight Management
Lean Protein
Poultry
Beef/Game/Lamb
Fish
Eggs
Low-Fat Dairy
Soy (e.g., Tofu, Tempeh)
Legumes/Nuts
Vegetables & Fruits
Raw Veggies
Cooked Veggies
Veggie Soups
Fresh Fruit
Water
Dairy/Nondairy Milk
Diluted Juice
Flavored Beverages
Coffee
Tea
FLAVORS
Salt/Pepper
Herbs
Spices
Vinegar
Salsa
Mustard
Ketchup


MODERATE TRAINING
FATS
1 Tablespoon
Avocado
Oils
Nuts
Seeds
Cheese
Grains
Pasta
Rice
Potatoes
Cereals
Breads
Legumes
Lean Protein
Poultry
Beef/Game/Lamb
Fish
Eggs
Low-Fat Dairy
Soy (e.g., Tofu, Tempeh)
Legumes/Nuts
Vegetables
Raw Veggies
Cooked Veggies
Veggie Soups
Fresh Fruit
Stewed Fruit
Dried Fruit
Water
Dairy/Nondairy Milk
Diluted Juice
Flavored Beverages
Coffee
Tea
FLAVORS
Salt/Pepper
Herbs
Spices
Vinegar
Salsa
Mustard
Ketchup


HARD TRAINING/GAME DAY
FATS
2 Tablespoons
Avocado
Oils
Nuts
Seeds
Cheese
Grains
Pasta
Rice
Potatoes
Cereals
Breads
Lean Protein
Poultry
Beef/Game/Lamb
Fish
Eggs
Low-Fat Dairy
Soy (e.g., Tofu, Tempeh)
Legumes/Nuts
Vegetables
Cooked Veggies
Veggie Soups
Raw Veggies
Fresh Fruit
Stewed Fruit
Dried Fruit
Water
Dairy/Nondairy Milk
100% Fruit Juice
Sport Drink
Flavored Beverages
Coffee
Tea
FLAVORS
Salt/Pepper
Herbs
Spices
Vinegar
Salsa
Mustard
Ketchup

Anemia reduces sport performance!

- Symptoms

- Fatigue
- Dizziness
- Low blood pressure
- Quick heart rate
- Muscle weakness
- The skin is pale and cold
- Shortness of breath, shortness of breath

Table 13.4 Warning Signs of Eating Disorders

Issue	Symptoms
Weight changes	• Sudden loss of weight • Wide fluctuations in weight over a short time
Food behavior	• Consumption of large amounts of food that are inconsistent with the athlete's weight • Evidence of eating in private (food disappearing, empty food wrappers) • Avoidance of eating or refusal to join in social occasions involving eating • Excessive interest in handling food and in preparing food for others • Preoccupation with the dietary patterns and eating behavior of others • Uncomfortable behavior at meals or with food (e.g., movement of food around plate without eating, very fast eating followed by picking at leftovers)
Self-image	• Worry about being too fat • Constant self-examination and comparison with others
Personality	• Withdrawal or anxiety • Mood swings
Evidence of problem behaviors	• Admission or evidence of use of laxatives, diuretics, or diet pills • Admission or evidence that athlete vomits after meals • Excessive exercise in addition to set training program
Physical signs	• Amenorrhea (cessation of periods, or failure to start menstruating at all) • Tooth decay or acid erosion of teeth from vomiting • Gastrointestinal complaints (indigestion, constipation, bloating) • Stress fractures • Cold intolerance • Jaundiced skin (carotenemia) • Lanugo (fine hair on body)

Prevention and treatment of iron deficiency

mysportscience
@jeukendrup
www.mysportscience.com

1

Dietary Iron

Mostly animal sources: meat, fish, poultry, liver, but also green leaf vegetables, beans, nuts, dried fruits and whole grains

2

Iron **supplement**

Ferrous sulphate, ferrous fumarate, ferrous gluconate, ferric citrate, ferric sulphate, slow release, serum... etc. What is best may be different from individual to individual

3

Iron **Injection**

Consult a sports physician

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SPORT NUTRITION AND
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CONSENSUS STATEMENT

Nutritional Recommendations for Synchronized Swimming

Sherry Robertson, Dan Benardot, and Margo Mountjoy

The sport of synchronized swimming is unique, because it combines speed, power, and endurance with precise synchronized movements and high-risk acrobatic maneuvers. Athletes must train and compete while spending a great amount of time underwater, upside down, and without the luxury of easily available oxygen. This review assesses the scientific evidence with respect to the physiological demands, energy expenditure, and body composition in these athletes. The role of appropriate energy requirements and guidelines for carbohydrate, protein, fat, and micronutrients for elite synchronized swimmers are reviewed. Because of the aesthetic nature of the sport, which prioritizes leanness, the risks of energy and macronutrient deficiencies are of significant concern. Relative Energy Deficiency in Sport and disordered eating/eating disorders are also of concern for these female athletes. An approach to the healthy management of body composition in synchronized swimming is outlined. Synchronized swimmers should be encouraged to consume a well-balanced diet with sufficient energy to meet demands and to time the intake of carbohydrate, protein, and fat to optimize performance and body composition. Micronutrients of concern for this female athlete population include iron, calcium, and vitamin D. This article reviews the physiological demands of synchronized swimming and makes nutritional recommendations for recovery, training, and competition to help optimize athletic performance and to reduce risks for weight-related medical issues that are of particular concern for elite synchronized swimmers.

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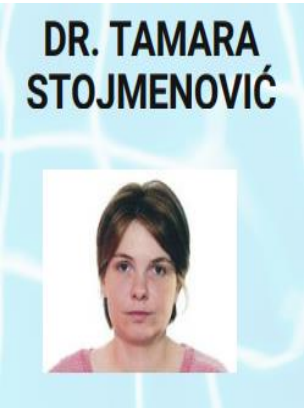
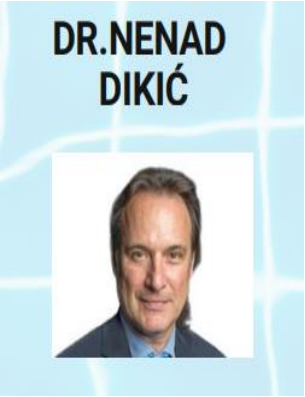


Dr Tamara Stojmenović – diplomirala 2010. na Medicinskom fakultetu u Beogradu; doktorat završila na Medicinskom fakultetu u Kragujevcu. Odbrana doktorske teze na temu: Uticaj košarkaškog treninga na rast i razvoj devojčica u pubertetu i tinejdžerskom dobu. Dr Tamara Stojmenović je asistent profesora na Univerzitetu Singidunum – Fakultet fizičkog vaspitanja i sportskog menadžmenta. Bivša profesionalna košarkašica. Pre svega, posvećena dijagnozi i tretmanu povreda u sportu (fizikalni i ultrazvučni tretmani, prevencija i rehabilitacija povreda), kao i sportske kardiologije. Autor i ko-autor mnogobrojnih knjiga i naučnih radova u sportskoj medicine, dijagnozi i kontrolisanju nivoa bolova.

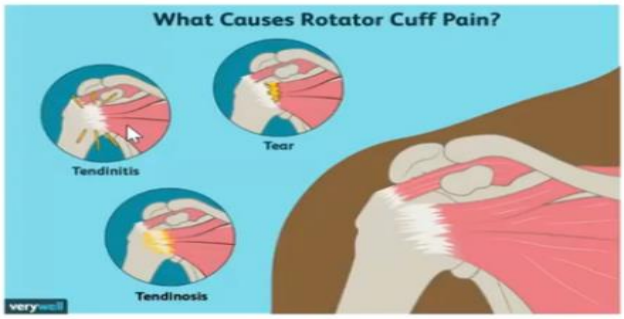


Prof. dr Nenad Dikić je osnivač Vita Maxima klinike. Specijalizirao je praksu Internističke medicine – kardiologija i baro medicina. Takodje je professor na Univerzitetu Singidunum - Fakultet fizičkog vaspitanja i sportskog menadžmenta. Član je medjunarodne antidoping agencije za penjanje i planinarenje, trenutni potpredsednik FIBA Europe Medical Committee, zvaničnik UEFA antidoping kontrole i predsednik IWWF komiteta za terapeutska izuzeća, kao IHF član. Dr Nenad Dikić je jedan od članova FIMS sa preko 40 publikovanih medicinskih knjiga, medju kojima je prvi sportski priručnik medicine iz 2016. u saradnji sa Prof. dr Vladimir Veljković.

- **Najčešće povrede u sinhronom plivanju**
- **Prevencija od povreda i rehabilitacija**
- **Problem sportske medicine u sinhronom plivanju**

ROTATOR CUFF PAIN

- tendinitis: inflamed swollen tendon that doesn't have microscopic tendon damage – usually **acute** inflamation
- tendinosis: chronically damaged tendon with disorganized fibers and a hard, thickened, scarred and rubbery appearance (abnormal cells, vessels and nerves that form to attempt to repair damaged tendon tissue)
- tendinopathy: **chronic** tendon problems
- tears: partial and total



ROTATOR CUFF PAIN - treatment

- **relative rest** and ice (in later phases – hot packs – **tendons like hot**)
- NSAIL (e.g. Brufen, Diclofenac)
- physical therapy
- kinesitherapy (strengthening and stretching exercises, core training)
- infiltration of subacromial space or peritendinous infiltration (corticosteroid injections)
- Surgery – usually rare

ROTATOR CUFF PAIN - kinesitherapy

PREVENTION

- **3-5 times a week**
- **5-15 minutes at the beginning of the practise**
- **2-5 exercises**
- **1-3 sets – 10-15 reps**

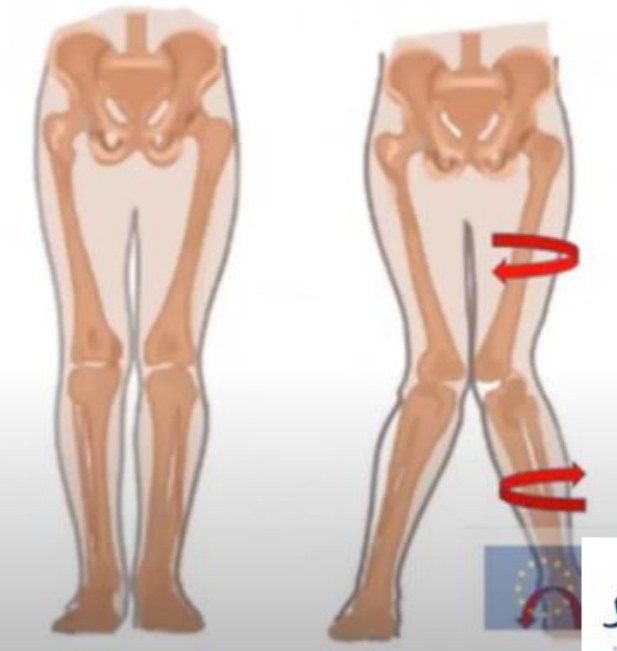
TREATMENT

- static vs. dynamic (isometric vc. isokinetic) exercises
- closed vs. open kinetic chain exercises

KNEE PAIN

EGGBEATER KICK

- knee flexion/extension and medial to lateral rotation
- knee valgus: hip adduction and hip internal rotation; knee actually abbducts and externally rotates



KNEE PAIN – diagnosis and treatment

KNEE PAIN – kinesitherapy

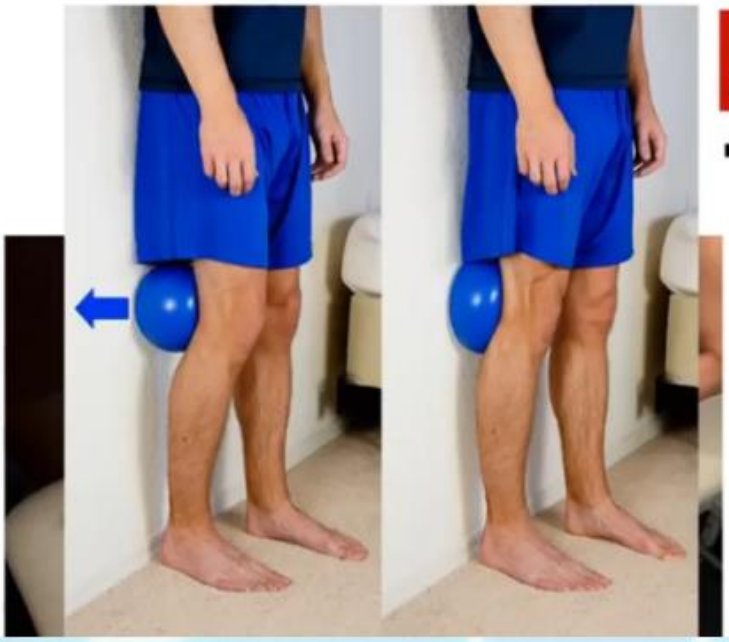
ROM; isometric; closed kinetic chain

- first we have to regain the range of motion (both pasive and active, painless)
- from the very beginning we do isometric strengthening exercises for thigh muscles (m. quadrcipes femoris – vastus medialis)
- in oreder to protect the joint, at the beginning we do closed kinetic chain exercises

isokinetic; open kinetic chain

- as we progress in rehabilitaion

KNEE PAIN – kinesitherapy

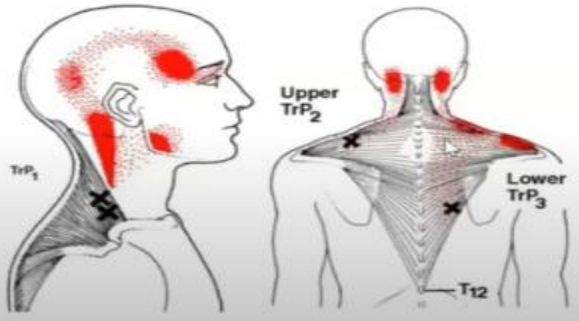


isokinetic; open kinetic chain

- as we progress in rehabilitaion

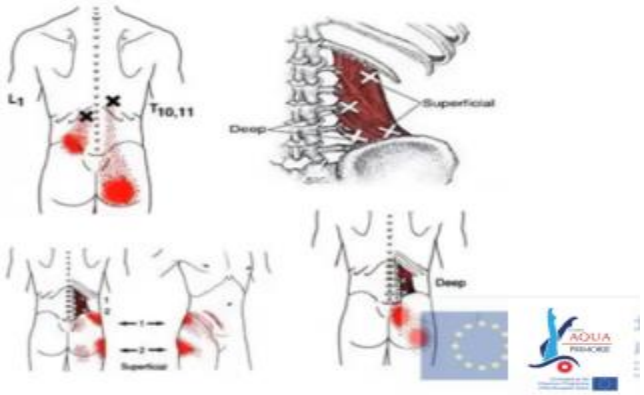
NECK PAIN

- Myofascial syndrome: **chronic** muscle spasam – **triger points** in upper parts of m. trapezius and other neck muscles.



LUMBAR PAIN

- Myofascial syndrome of m. quadratus lumborum



CONCLUSION

- Better to prevent, then to treat!!!
  - proper training techniques
  - enough time for recovery („the more, does not mean better")
  - proprioceptive training: strength and flexibility on a regular daily basis
- Diagnose and treat injury in acute phase, rather to be late and to go into chronis, overuse injury!!!

Doping in Synchronised swimming

2011 2012 2013 2014 2015 2016 2017 2018 2019 2020 2021

Athlete	Country	Suspension	Substance	Event	Sport	Year
Nuria Diosdado	Mexico	One year suspension	Clenbuterol	2010 XXI Juegos Deportivos Centroamericanos y del Caribe	Synchronized Swimming	2010
Ksenia Ivlieva	Russian Federation	Two years suspension	Furosemide	2009 Russian National Synchronized Swimming Championships	Synchronized Swimming	2009
Mariana de Oliveira Marques	Portugal	Nine months suspension	Methylprednisolone	2009 Portugal National Championships of Synchronised Swimming	Synchronized Swimming	2009
Mary Hofer	United States	Two years suspension	Refusing or failing without compelling j...	Out-of-competition Test	Synchronized Swimming	2004

Your search resulted in 4 hits

anti-doping data

S9 GLUCOCORTICOIDS

PROHIBITED IN-COMPETITION

All prohibited substances in this class are *Specified Substances*.

All glucocorticoids are prohibited when administered by oral, intravenous, intramuscular or rectal route.

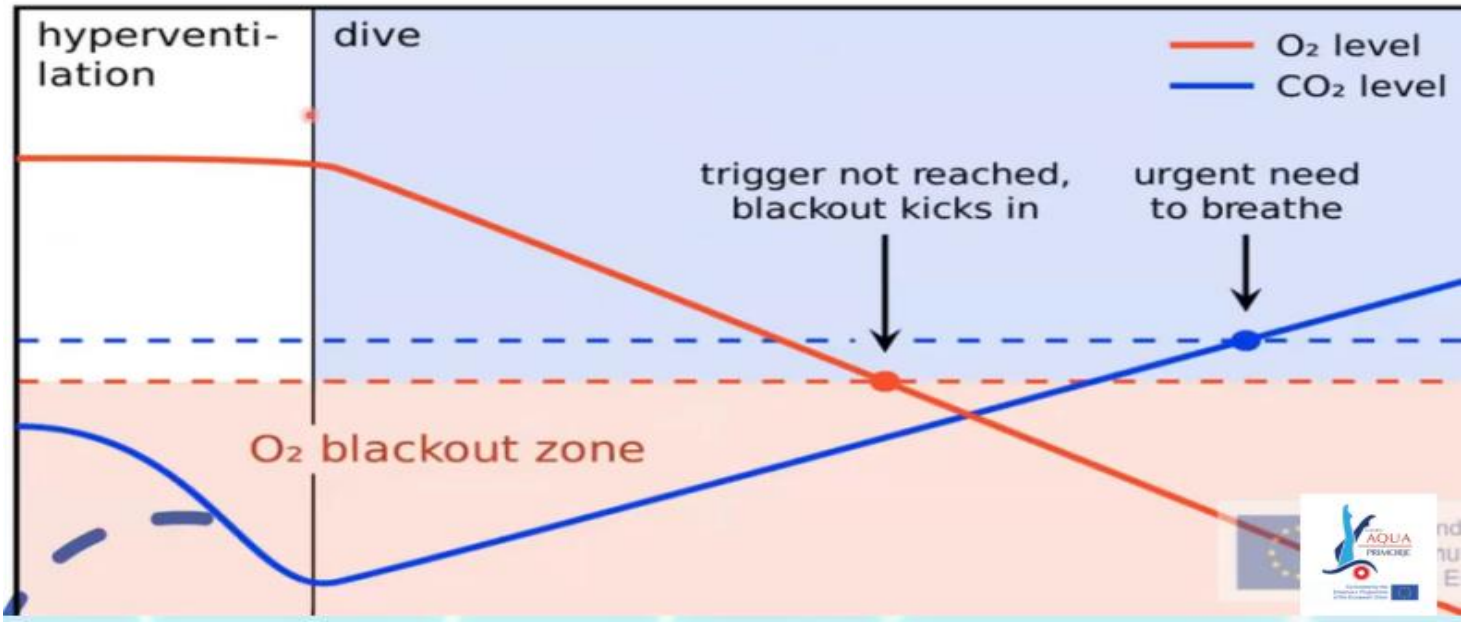
Including, but not limited to:

- Beclometasone
- Betamethasone
- Budesonide
- Ciclesonide
- Cortisone
- Deflazacort
- Dexamethasone
- Flucortolone
- Flunisolide
- Fluticasone
- Hydrocortisone
- Methylprednisolone
- Mometasone
- Prednisolone
- Prednisone
- Triamcinolone acetonide

Mechanisms of drowning

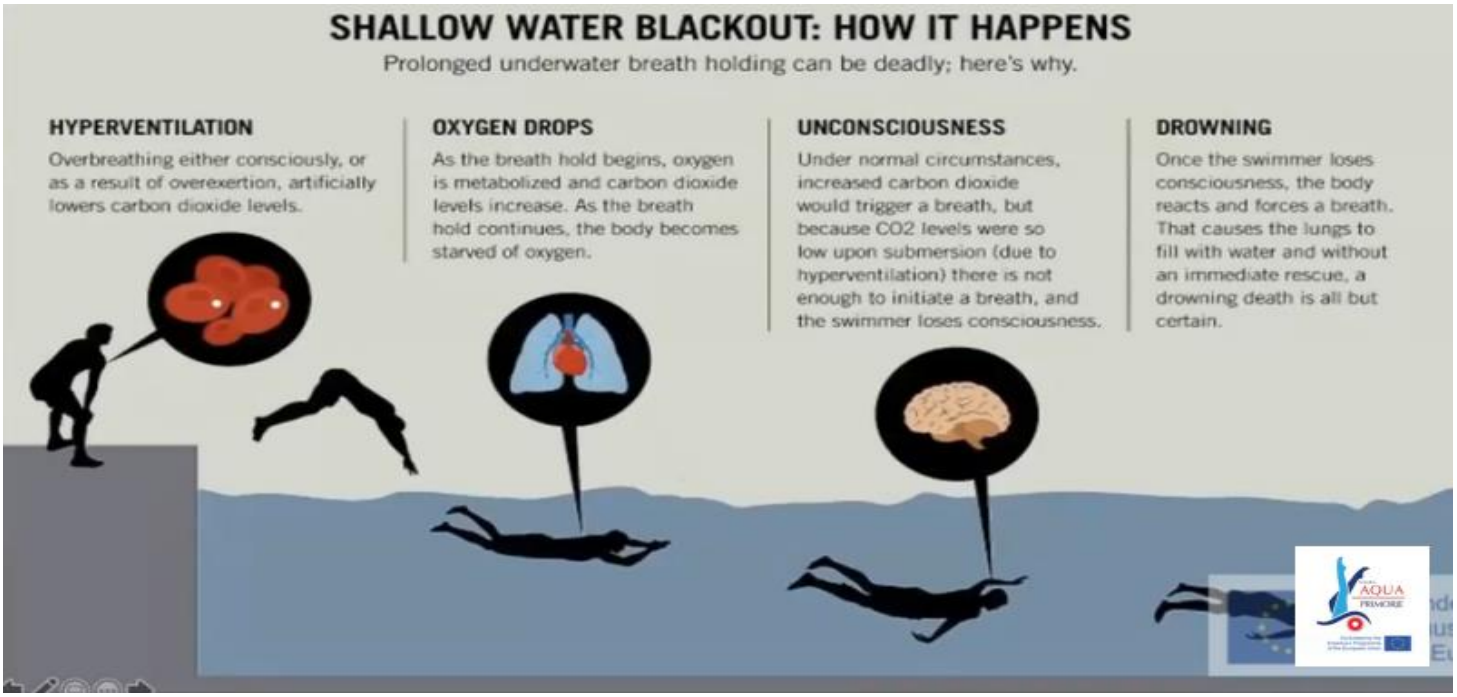
- Primary - most common in **water sports**, occurs due **to poor assessment of the ability to hold breath**
- Secondary - due to **various diseases** (cardiovascular), trauma, diving disorders!
- Diving disorders can be divided into those that require the use and those that do not require the use of a barochamber.
- One of the phenomena that does not require a barochamber is **Shallow water blackout**

Dive with hypocapnia

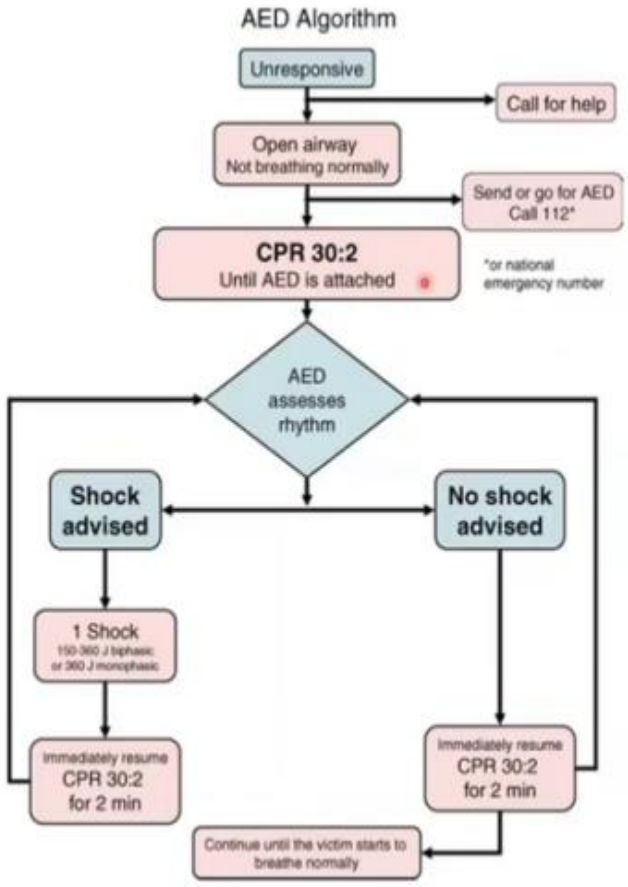


Risk factors for drowning

- Male
- Years <14
- Water exposure
- **Risky behavior**
- **Lack of monitoring**
- Alcohol use
- Low-income countries
- Poor education
- Rural environments
- Epilepsy - 15-19 times increased risk



BASIC LIFE SUPPORT



Additional recommendations

- Breathless underwater sequences **should not last longer than 40-45s.**
- Provide **longer intervals between hypoxic parts of swimming** so that swimmers do not hyperventilate
- Put **non-hypoxic swimming** with **hypoxic swimming** alternately
- Carefully **observe swimmers** not to hyperventilate before entering the water
- **Education and training for trainers** on how to prevent hyperventilation
- Maintain a **first aid course**

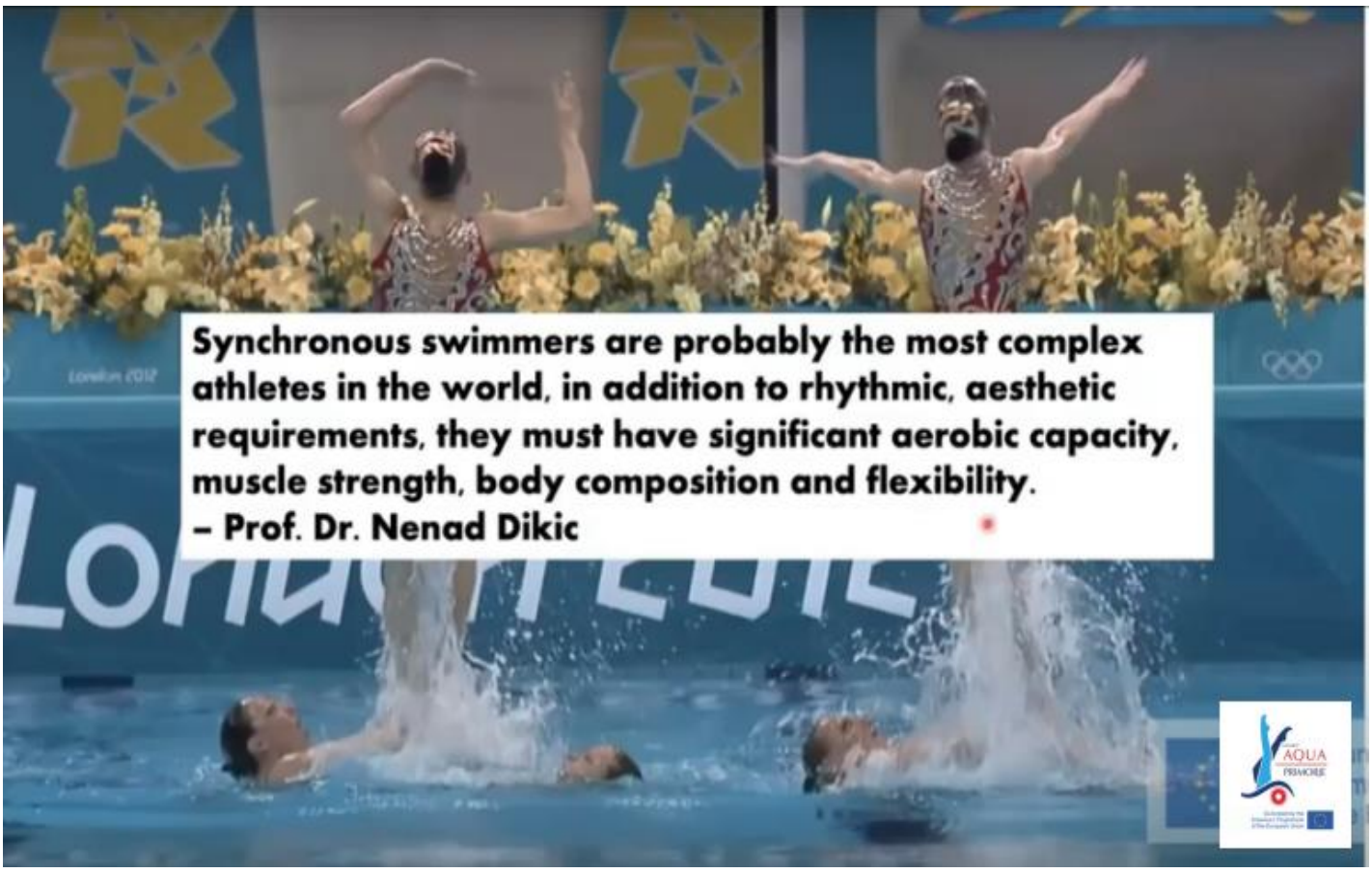
Body composition

	Swimmers	Synchronized swimmers
height	168,11±5,36 cm	162,48±5,79 cm
total body water	35,80±2,94 kg;	31,24±3,10 kg
skeletal muscle mass	27,20±2,45 kg	23,33±2,56 kg
%BF	17,84±4,00	21,3429±5,69

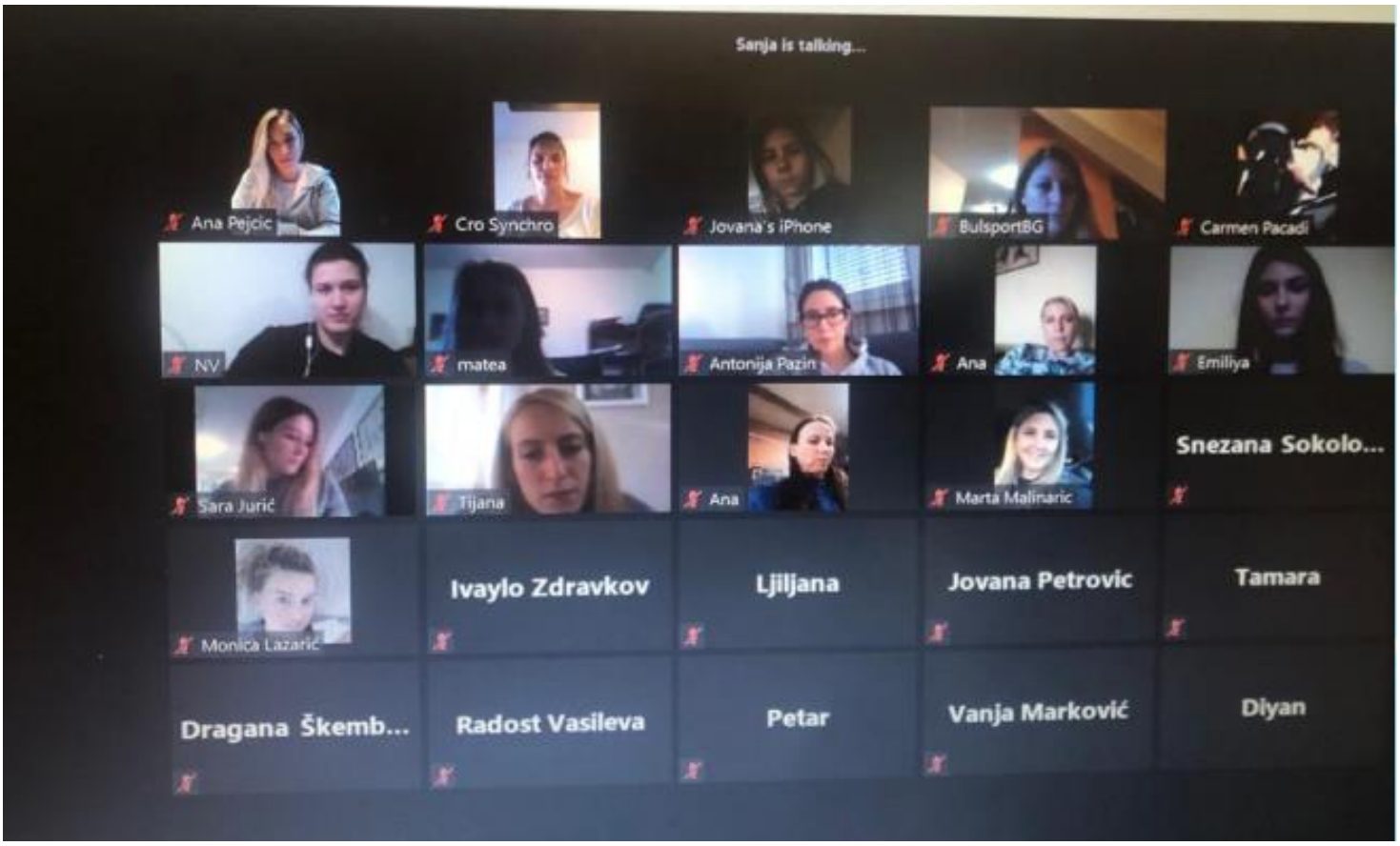
Martinez, M. A., Hernández, S., Esteban, P., Diaz, G., Labrado, S., Muñoz, V., . . . Gonzalez-Rave, J. M. (2010). Differences in body composition between swimmers and synchronized swimmers. *Biomechanics and Medicine in Swimming XI - Abstracts, A*, pp. 55 (O-020).

VO_2 max of synchronised swimmers

- VO2max of 44 ml/kg/min - the Canadian national artistic swimming team - Poole G, Crepin B, Sevigny M. Physiological characteristics of elite synchronized swimmers. Canadian journal of applied sport sciences. Journal canadien des sciences appliquees au sport. 1980;5(3):156-60.
- well-trained AS correlated with relative VO2max (50.8 ± 2.8 ml/kg/min) Yamamura C, et al. Physiological characteristics of well-trained synchronized swimmers in relation to performance scores. Int J Sports Med. 1999;20(4):246-51.
- VO2peak in AS athletes, have been positively correlated with performance - Poole G, Crepin B, Sevigny M. Physiological characteristics of elite synchronized swimmers. Canadian journal of applied sport sciences. Journal canadien des sciences appliquees au sport. 1980;5(3):156-60.




Marija Andjelkovic
Marija Šavko
Sanja
Sladjana Stanko...
Assia Stoycheva
Sanja
Valeria
Neda S
Marija Senica Jo...
Milica Mincic
Ana Pejcic
Cro Synchro
Jovana's iPhone
BulsportBG
Carmen Pacadi
NV
matea
Antonija Pazin
Snezana Sokolo...
Ana
Emiliya
Sara Jurić
Tijana
Ana
Monica Lazaric


Sanja is talking...
Ana Pejcic
Cro Synchro
Jovana's iPhone
BulsportBG
Carmen Pacadi
NV
matea
Antonija Pazin
Ana
Emiliya
Sara Jurić
Tijana
Ana
Marta Malinaric
Snezana Sokolo...
Monica Lazaric
Ivaylo Zdravkov
Ljiljana
Jovana Petrovic
Tamara
Dragana Škemb...
Radost Vasileva
Petar
Vanja Marković
Diyan

SOFIJA, BUGARSKA

MODUL 2

Petak 25.06. – Nedelja 27.06.2021.

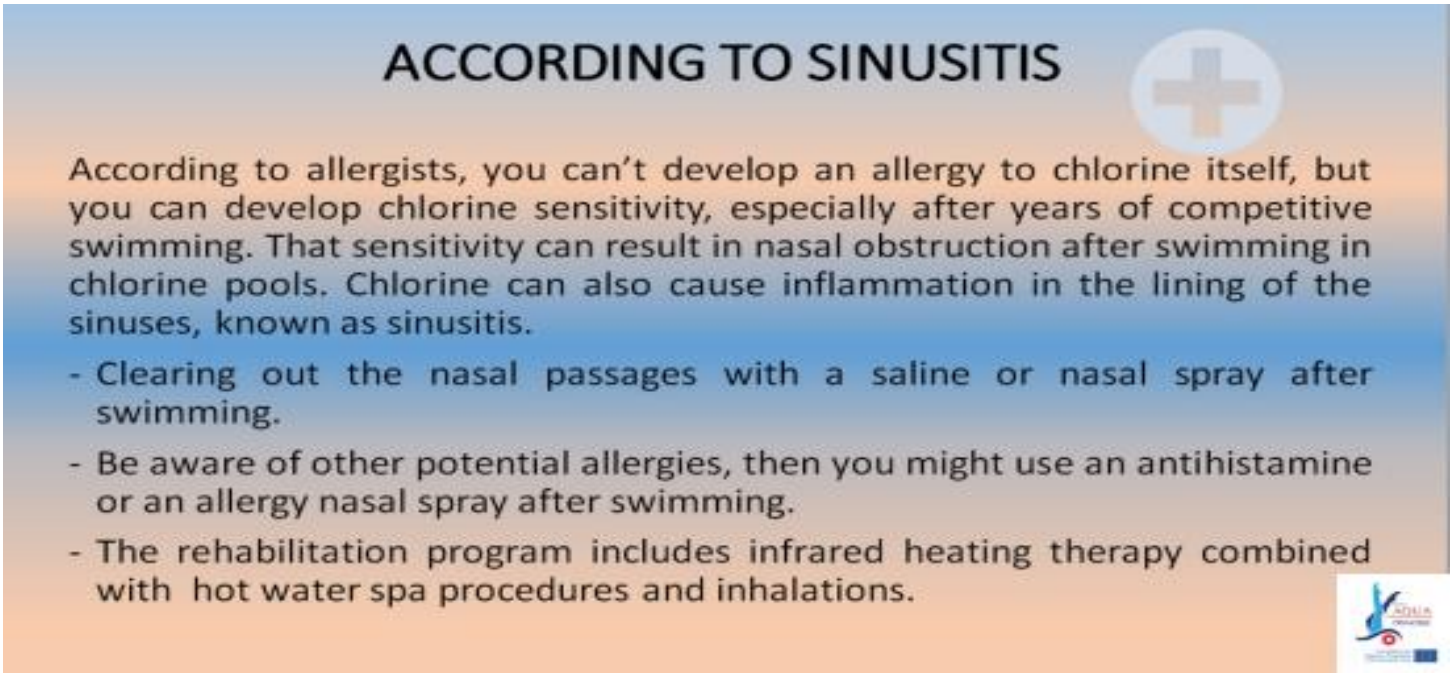
Ivelina Dimitrova – povrede u artističkom plivanju

Dženifer Graj – figure 13 – 15 i U12

Obrazovanje:

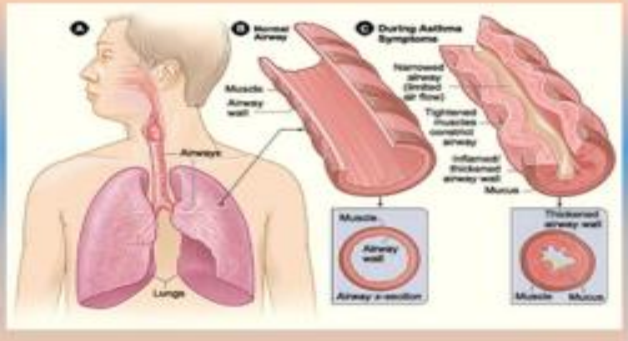
- **Nacionalna sportska akademija "Vasil Levski"**
  - **Doktor filozofije – Doktorski rad na temu Hrana, ishrana i Wellness studija, Specijalista Opšte medicine, Menadžer Spa i Wellness centra (2018.-2021.)**
  - **Magistar zdravlja i sporta(2016. - 2017.)**
  - **Aktivnosti: ishrana, sportska ishrana i fitonutricija**
  - **AFAS**
  - **Master diploma Usvojene fizičke aktivnosti i sport**
  - **Rad sa ljudima sa invaliditetom, marginalna grupa ljudi i ljudi sa manama**
  - **Kineziterapija (2001. – 2005.)**

- **Povrede u sinhronom plivanju**
- **Prevencija povreda**
- **Kinezi trake**



ACCORDING TO ASTHMA

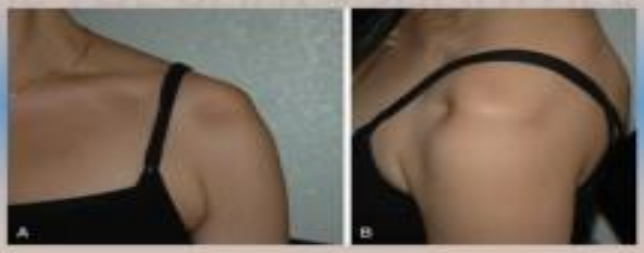
Elite swimmers are at increased risk of asthma, attributed to airway inflammation and increased airway responsiveness induced by high-intensity long-term exercise and repeated exposure to the chlorine-rich atmosphere in swimming pools during training and competition. This can increase the sensitivity of the body to other allergens too.



MOST AFFECTED PARTS OF THE BODY - SHOULDER

Shoulder instability

Synchronized swimmers are prone to the development of shoulder instability problems, often the result of stretching of the shoulder capsule because of repetitive micro trauma, combined with the inherent hypermobility of the shoulder seen in these athletes.



MOST AFFECTED PARTS OF THE BODY - KNEE

The knee is often injured in synchronized swimming due to the stresses applied to it during the eggbeater kick. This kick can traumatize the knee unless the knee is strong and the proper technique is used.

Fewer or even less severe injuries may be noted if the muscles surrounding the knee joint are strong. It is important to condition the knee joints throughout the full range of motion.

Often muscle injuries occur to a joint when a muscle group on one side of that joint is stronger than the muscle group on the opposite side. Therefore, equal conditioning should be done to both sides of the knee joint or any joint within the body.

MOST AFFECTED PARTS OF THE BODY - BACK

Places stress on the lumbar spine by forcing lumbar hyperextension occur facet dysfunction, myofascial injury, spondylolysis, spondylolisthesis, and acute disc protrusion are some of the lumbar injuries.

Some of them are very serious injuries and spend really long time for recovery if it is possible.

SPORTS INJURIES PREVENTION

The best way to prevent a sports injury is to **warm up** properly. Cold muscles are prone to overstretching and rupture. Warm muscles are more flexible. They can absorb quick movements, bends, and tweaks, making injury less likely.

Learn the **proper technique** to move during the training. Different types of exercise require different postures. For example, bending your knees at the right time can help avoid an injury to your spine or hips .

If the athlete does get hurt, make sure she's healed before she starts the activity again. Don't try to "work through" the pain.

MOST AFFECTED PARTS OF THE BODY - SHOULDER

Multidirectional instability in the shoulder is a result of repetitive micro trauma, combined with the inherent hypermobility of the shoulder.

we need to:

- limit the hyper stretch in the shoulder,
- straight the muscles in the rotator cuff

MOST AFFECTED PARTS OF THE BODY - BACK

- Stop the load on the affected part of the back
- Limit the range of movements in the affected part.
- Therapy with anti-inflammatory gels applied with ultrasound, short wave diathermy, laser.
- The recovery and pain relieve need 3 to 10 days.
- We can use the kinesiotaping too.

MOST AFFECTED PARTS OF THE BODY - KNEE

Chondromalacia of the patella (knee cap) is a degenerative process, which involves the under surface of the knee cap.

Dženi Grej je bila član prvog tima sinhronog plivanja Velike Britanije, pre nego što se posvetila trenerskom poslu. Nakon što je inicijalno počela svoj put kao skakačica u Slough and District Diving Club, a posle u Metropolitan School of Diving, Grej je učestvovala u nastupima sinhronog plivanja. Počela je da se razvija u sinhronom plivanju kada je sinhrono plivanje postalo takmičarski sport u Engleskoj i na kraju se takmičila na prvom Svetskom prvenstvu u Beogradu 1973. godine. Nakon što je prestala sa takmičenjem, Grej se posvetila predavanju i trenerskom poslu. Postala je Nacionalni zvaničnik za razvoj sinhronog plivanja i skokova. Bila je uključena u postavljanju trenerskih kvalifikacija, primarno za sinhrono plivanje.

Grej je takodje član Tehničkih komiteta LEN i FINA i bila je predsedavajuća ASA Tehničkog komiteta za sinhrono plivanje od 2004. do 2015.

Sudila je na velikom broju takmičenja visokog nivoa, kao što su Svetska Prvenstva, Igre Commonwealth – a i Olimpijskim igrama, gde je takodje bila kao i evaluator.

Grej, takodje, vodi trenerske seminare širom sveta i predstavila je intenzivne kurseve na svake dve godine za predavače i trenere u Engleskoj koji su ključni u osiguravanju da se naše takmičarke mogu takmičiti na medjunarodnom nivou i budu uspešne u tome.

Ona je, takodje, osmislila i implementirala kurs Trenerskih studija na Oxford Brookes Univerzitetu, ima mnogobrojne napisane knjige o sinhronom plivanju i, i dalje, drži gostujuća predavanja.

- **Figure 13 – 15 U12**
- **Kako biti trener**
- **Kako postati najbolji**

106 Straight Ballet Leg 1.6

From a **Back Layout Position**, one leg is raised straight to a **Ballet Leg Position**. From a **Ballet Leg Position** the ballet leg is bent without movement of the thigh to a **Bent Knee Back Layout Position.** The toe moves along the inside of the extended leg until a **Back Layout Position is assumed.**

								Total
NVT=	18.5	11.0	10.5					40
PV =	4.63	2.75	2.63					

Practices for Straight Ballet Leg

Before doing the ballet leg drills ensure the body is tight and the swimmer has control of their back layout. There should be a firm triangle from one elbow to the top of the head, down to the other elbow and across the chest. This 'triangle of power' should remain totally stationary.

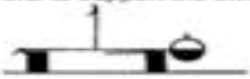
Ballet Leg Position

- On land with hips raised from the floor

- On land with arms extended beyond the head or with the horizontal foot raised off the floor

- On land with foot supported on exercise ball (advanced practice)

- On land with body suspended from 2 benches or chairs. On the poolside, 2 or 3 floats could be used. Be careful to support the swimmer getting into and out of the position



If the swimmers look tense in the neck, get them to speak out loud as they perform the figure

- Supported by bottles

- As required, a partner may be used to support the swimmer. This might be under the non-ballet leg or under the hips

- With the arms linked above the head. The swimmer will sink and may roll. This is a perfect practice for isolating the muscles required to lift the ballet leg. The ensure the body stays straight even if it sinks or rolls

Major Faults and Corrections in Straight Ballet Leg

Major Fault	Correction
• Chin dropped, back of the head high and chest low throughout the figure. Head lifting off the water	• Use verbal correction: Stretch the back of your neck. Push the top of your head away from you • Get a partner to hold the head into the correct position
• Sitting in the water as the leg is lifted. Hips very low	• Use verbal correction: squeeze your buttocks together. Keep the top of the head pushed away from the body • Use any of the land practices or practices without the use of arms • Practise with a pole down the costume
• Bringing ballet let beyond the vertical position	• Use a verbal cue of when to stop • Get a partner to put a hand or float in front of the thigh so the swimmer has to stop when the thigh is vertical
• Foot of the bending and straightening leg looking flat against the horizontal leg	• Keep only the big toe in contact with the leg. Make the arch come in the ankle joint. Keep the heel lifted from the horizontal leg • Try to get tight wrinkles at the back of the ankle and under the foot
• Lowering the leg too fast	• Stop when the leg is half way down • Keep your head pressed back in the water
• The knee coming towards the chest as the leg bends back to bent knee position	• Use exaggerated correction. Tell the swimmer to press the knee to a point about 45 ° to the water surface • Stressing keeping the core tight, use any of the land practices or practices without the use of arms • Use the water practices with the arms linked beyond the head. This ensures the swimmer is using their quadriceps and core
• Uneven timing throughout the figure	• Use a metronome or counts. Time each section of the figure
• Body unstable, not kept in a firm horizontal line	• Keep the core muscles engaged throughout and the 'triangle of power' between the elbows and the top of the head stationary
• Splashy sculling	• Press down on the thumbs on the out scull • Scull from the elbows • Feel as though you are sculling 'up-hill' away from the body • Keep the 'triangle of power' across the shoulders stationary

301 Barracuda 1.9

From a **Back Layout Position**, the legs are raised to a vertical as the body is submerged to a **Back Pike Position** with the toes just under the surface. A ***Thrust*** is executed to a **Vertical Position**. A *Vertical Descent* is executed at the same tempo as the *Thrust*.

A ***Thrust*** is defined: with the legs perpendicular to the surface, a vertical upward movement of the legs and hips is rapidly executed as the body unrolls to assume a **Vertical Position.** Height is desirable

								Total
NVT=	10.0	31.0	15.0					56
PV =	1.89	5.54	2.68					

Practices for Barracuda

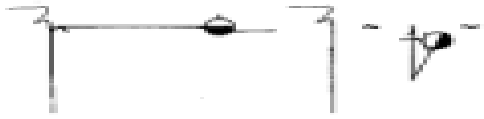
Back Layout to Submerged Pike position

- Practise the pike position. This can be practised in a pike float, on land as well as in the position used in the figure or against the wall pushing the feet into the wall.
  The closer the pike, the higher the thrust

- A partner lifting the legs

- A partner using very light resistance.

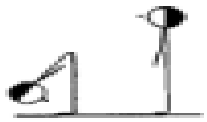
- Starting with the feet close to the wall



Thrust

- Start in a sitting position on land and unroll to back lying

- Stand in a close pike position and unroll to standing. The can be done with or without a wall behind the swimmer



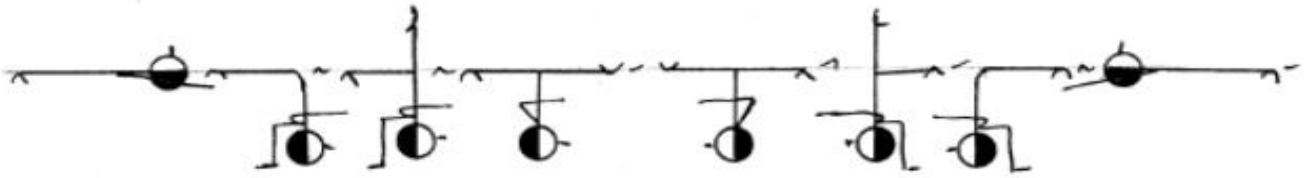
- Start in a tight pike position with legs along the surface and unroll to front layout

Major Faults and Corrections in Barracuda

Major Fault	Correction
• From back layout to pike, travelling foot first	• Tighten the front of the legs. Pull the knee caps into the costume. Lift legs towards the face • Ensure the palms are flat to the surface or the bottom of the pool • Practise starting with the feet close to the wall
• Arching the back before the legs lift to pike	• Tighten the front of the legs. Pull the knee caps into the costume • Keep core very tight. Keep your ribs pulled in tight
• Pike position too open, more than 45 °	• Practise holding on the wall with the legs up the wall and pulling the body in close • Practise a pike float or with feet flat on the wall • Practise long sitting on land and folding the body into a tight pike position. Ensure your back is flat, not rounded
• During the thrust, the legs scooping and pulling over the face	• Use any of the unrolling practices ensuring the body unrolls from the base of the spine • Practise with a partner lifting the feet • Ensure the pelvis tilts before the body unrolls
• Starting the unrolling movement from the shoulders and not the base of the spine	• From a long sitting closed pike position on land, unroll to back lying • Practise the unrolling action without arms, unrolling the body slowly and then fast • Practise unrolling down the wall • Practise unrolling feet first. You should see the lower back lift over the legs • Practise with partner holding the head still
• Thrust too low. Lacking a strong sideways press	• Keep the arms behind you as long as possible and then rotate to the catch close to the surface • Press strongly down the side of the body • On land, practise the pressing action using an elastic cord for resistance • Practise from a hanging vertical pressing down the side of the body. The swimmer should get their buttocks dry • Use hand paddles for the practise above
• Legs finishing over the back	• Ensure the body is unrolling from the base of the spine • Ensure the arms are pressing down the sides of the body and not in front of it and keep yourcore tight
• Slow descent	• Press the arms rapidly back down the body • Practise from the hanging vertical, pressing up to full height and then rapidly reversing the hands and pressing them back down the body

423 Ariana 2.2

A Walkover Back is executed to a **Split Position**. Maintaining the relative position of the legs to the surface, the hips rotate 180°. The front leg is lifted in a 180° arc over the surface to meet the opposite leg in a **Surface Arch Position.** The hips, chest and face surface sequentially at the same point, with foot first movements to a **Back Layout Position,** until the head occupies the position of the hips at the beginning of this action



								Total
NVT=	12.0	22.0	10.0	23.0	8.0			75
PV =	1.6	2.93	1.33	3.07	1.07			

Practices for Ariana

Back Layout to Surface Arch
If at any time the backs hurts, curl into a tucked ball and stretch the back muscles.

- Dolphin scull at the surface. Keep the sculls narrow and smooth

- Arch position against the wall, head up. Tilt the pelvis under. A partner may gently press the hips into the wall

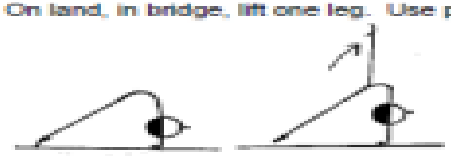
- Starting with the feet close to the wall. If moving feet first, practise the sculling action in the surface arch position. Travel should be face first

- Surface arch with float under head

- Surface arch either holding a float or hands press on the float above the head

Surface Arch to Split

- On land, in bridge, lift one leg. Use partner pressure to assist leg lifting



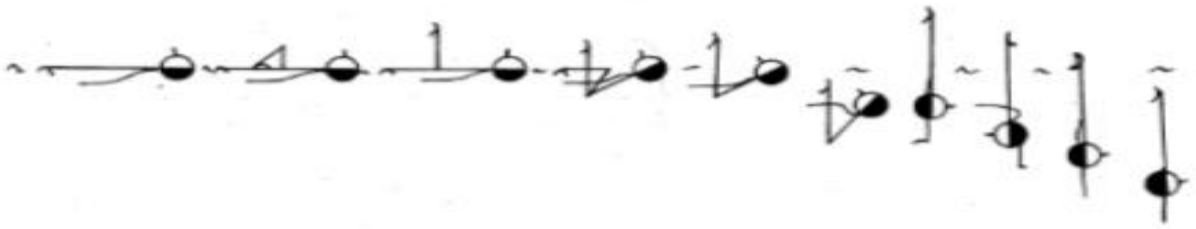
Major Faults and Corrections in Ariana

Fault	Correction
• Not travelling into surface arch	• Ensure the wrists are flexed • Practise dolphin scull along the surface
• Insufficient arch in lower spine in surface arch position	• Contract the muscles in your lower spine • Squeeze the buttocks together • From a vertical, holding onto the poolside and facing it, lower the legs towards the surface. A partner can gently press your hips into the wall. **Stop if it hurts**
• Not keeping the back arched as the leg is lifted	• Keep the lower back tight and the body pressed as far back as possible. Keep your pelvis tilted under • Practise from surface arch and double leg lift over to canoe position
• Hips twisted as first leg is lifted	• If lifting left leg, pull the left elbow back so that the arms elbows are in the same position relative to the body
• Lack of height from knight position to split	• Lift the leg as high over the water as possible. Use strong support scull. Think of going over the water, not through it • Practise holding bottles and with a noodle tied around the waist
• During the rotation, legs coming forward out of line	• Turn the legs from the hips • Feel as though the feet are being pulled away from the body and then pulled back into the hips • Work on the flexibility on land, ensuring the legs are rolled outwards
• Feet coming off the surface during the rotation	• Ensure the tension is transferred from one side of your legs to the other
• Hips out of line in the knight position	• Keep your buttocks very tight and your trunk pressed back. Keep the back of the neck long • Practise the knight position holding the side of the pool (face towards the wall)
• Sinking in the knight position	• Maintain support scull until just after the leg passes vertical and then change to split scull or use double overhead support scull and then split scull
• Foot first travel from the knight position to the surface arch	• Pull hard with the front hand. Make sure the front arm is in front of your body • Practise with the back foot supported by the wall or a noodle • Check the body arch. Shorten the muscles in the back and press your body back
• Excessive foot first travel during the final unroll	• Ensure the arms are in front of the body close to the surface before unrolling • Practise the unrolling action without any sculling
• Feet sinking as the body unrolls	• Tighten the front of the thighs. Pull your knees in towards your costume • Practise with buoyancy support under the feet • Practise with resistance on the feet

143 Rio 3.1

A **Flamingo** is executed to a **Surface Flamingo Position**. The horizontal leg is extended to a **Surface Ballet Leg Double Position**. The body submerges vertically to a **Back Pike Position** with the toes just under the surface. A *thrust is executed to a* **Vertical Position.** A 360° Spin is performed at the same tempo as the ***Thrust***

A ***Thrust*** is defined: with the legs perpendicular to the surface, a vertical upward movement of the legs and hips is rapidly executed as the body unrolls to assume a **Vertical Position.** Height is desirable

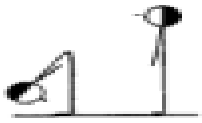


								Total
NVT=	10.5	11.0	13.0	13.0	15.0	31.0	30.0	123.5
PV =	0.85	0.89	1.05	1.05	1.21	2.51	2.43	

Thrust

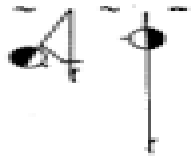
- Start in a sitting position on land and unroll to back lying

- Stand in a close pike position and unroll to standing. The can be done with or without a wall behind t swimmer



- Start in a tight pike position with legs along the surface and unroll to front layout

- Start in a pike float and unroll 'down the drain'. Ensure the legs go down vertically and the buttocks lift over the legs followed by the trunk



- Without sculling, unroll slowly and low, ensuring the body unrolls under the legs. Tilt the pelvis under before the unroll. Keep the head still and push the feet upwards

- Start submerged with the legs against the wall, without sculling, unroll to vertical. Each vertebra must touch the wall one after the other starting at the base of the spine

Major Faults and Corrections in Rio

Major Fault	Correction
• Sitting in the ballet leg	• Pull the head and shoulders back. • Scull from the elbows keeping the upper body very tight
• In flamingo position, bringing the vertical leg over the face and bringing the bent knee too close to the body	• Practise supported by bottles • Use a verbal cue to stop leg in the correct position • Use a partner to correct the angle of the leg
• Double ballet leg over face and/o face under water	• Practise supported by bottles • Use a partner to correct the angle of the leg
• Descending too fast or too deep	• Maintain sculling or try using a split scull. Ensure the shoulders do not twist • Use a verbal cue to indicate when swimmer is at the correct depth
• Descending in an open pike and then closing tighter	• Stress pushing the bottom of the ribs onto the legs
• Pike position too open, more than 45 °	• Practise holding on the wall with the legs up the wall and pulling the body in close • Practise a pike float or with feet flat on the wall
• During the thrust, the legs scooping and pulling over the face	• Use any of the unrolling practices ensuring the body unrolls from the base of the spine • Practise with a partner lifting the feet
• Starting the unrolling movement from the shoulders and not the base of the spine	• Use any of the thrust practices listed. Work on getting the correct unrolling movement before thinking about height
• Thrust too low	• Keep the arms behind you as long as possible and then rotate to the catch close to the surface • Press strongly down the side of the body • On land, practise the pressing action using an elastic cord for resistance
• Thrust too low. Lacking a strong sideways press	• Practise from a hanging vertical pressing down the side of the body. The swimmer should get their buttocks dry • Use hand paddles for the practise above
• Legs finishing over the back	• Ensure the body is unrolling from the base of the spine • Ensure the arms are pressing down the sides of the body and not in front of it and keep core tight
• Starting the spin before the thrust is completed	• Starting in a hanging vertical, push up and then spin down. Stress Barracuda and then spin
• Falling off the spin	• The major problem is not getting straight in the thrust. The swimmer must get very tight and straight and then spin
• Falling off spin	• Keep your arms very close to your body at the start of the spin


TYR


Where do you see artistic swimming in 2030?
BSDA
Where do you see artistic swimming in 2030?
BSDA


Straight Ballet Leg


АСОЦИАЦИЯ ЗА РАЗВИТИЕ
НА БЪЛГАРСКИЯ СПОРТ


Erasmus

RIJEKA, HRVATSKA

MODUL 3

Ponedeljak 13.09. – Sreda 15.09.2021.

Valerija Petrakina – koreografija i svi njeni elementi kroz istoriju

Dženifer Graj – koreografija i muzička interpretacija

Radno iskustvo:

- Trener sinhronog plivanja u specijalizovanoj sportskoj školi “Cristal”, rad sa svim starosnim grupama, primarno od 5 do 10 godina. (Septembar 1998. – Avgust 2005.)
- Glavni trener KSP Primorje Aqua Maris, Rijeka (2005. – traje)
- Trener nacionalnog tima Hrvatske (2005. – traje)
- Sudija u sinhronom plivanju (2009. – traje)

Obrazovanje:

- Ruski državni fakultet za sport, turizam i kulturu (1998. – 2004.)
- Ruski državni fakultet za koreografiju u pozorištu (1998. – 2004.)
- Hrvatska sudijska škola za sinhrono plivanje (Mart 2007.)
- Uspešno završen program za Glavnog instruktora HSSP Sudijskog veća i položila ispit za državnog sudiju prve kategorije (2015.)
- Uspešno završene postdiplomske studije istraživanja teorije i prakse programa za trenere vodenih sportova (Jul 2008.)
- Uspešno završen program za Glavnog instruktora HSSP Sudijskog veća i položila ispit za državnog sudiju (April 2007.)
- Uspešno završen program za Glavnog instruktora HSSP Sudijskog veća i položila sudijski ispit (Mart 2007.)

- **Istorija sinhronog plivanja**
- **Kako se menjala**
- **Pripreme za nastup**

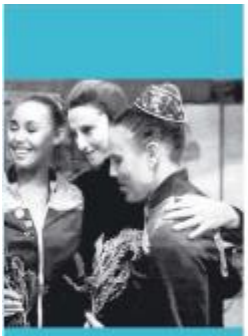
- artistic sport
- spectacularity and brilliance of competitions,
- combination of strength and grace in the actions of athletes
- one of the most difficult sports requiring non-female endurance and strong-willed qualities from athletes
- 70 years ago was not yet considered a sport

- NAME: announcer Norman Ross used the phrase to describe the performances of 60 swimmers in Chicago, 1934
- 1933. https://www.youtube.com/watch?v=FRqcZcrgPaU&list=RDCMUCUorIMU3k_AsVA8d6N1Bo3w&index=1
- 1934. https://www.youtube.com/watch?v=NI-uQjAArgQ&list=PLkmHTN9as89GczehoHFpYoQiebnib6czx&index=52
- American impresario Billy Rose ->water entertainment. In 1937 he created the Great Lakes Waterpark
- The show was such a success that Rose produced two more aquacades in New York and San Francisco, where Esther Williams was his star mermaid. After the show, Williams became an international sensation.
- ***Esther Williams***

https://www.youtube.com/watch?v=BNlyz1eBRB4

- Coreography then: more errors and flaws in the program; slow pace, inaccuracies in basic positions, divergence of athletes
- programs of that time corresponded to a certain "template" (..?)
- Longer programs (duo – 4minutes) ⟶ „resting" parts (slow swims on the back or on the side with minimal arm movements) ⟶ program looks less spectacular
- "evolution" of arbitrary programs: tempo, energy, and the number of movements are constantly increasing, but at the same time, the duration of coregoraphies, set by the rules, decreases

- 25th Olympic Games, 1992, Barcelona: last time a soloist performed at the Olympic Games
- To increase the entertainment and interest competitions in singles and doubles were excluded from it and group exercises were included
- Most likely, technical programs were introduced for the same purpose. The technical routine involves performing predetermined elements, executed in a specific order. These required elements are selected every four years



- Olympic Games in 1984 in Los Angeles : made its debut (Official competitions were held only among duets. 50 athletes from 21 countries took part in the first Olympic) https://www.youtube.com/watch?v=DUog1rKbr6o&t=32s
- The first Olympic champions: duet Tracey Ruiz - Candy Bones https://www.youtube.com/watch?v=qh40AqgWIls
- 24th Olympiad in Seoul (South Korea), 1988, Carolyn Waldo (Canada) became the first Olympic champion among soloists, gaining the maximum amount of points in the entire history of synchronized swimming - 200,150 https://www.youtube.com/watch?v=RVuqXJuzFLE
- Canadian duo also won https://www.youtube.com/watch?v=3L3DhZUYjJ4&list=PLkSxqe3rqKPX4ZSyFBNOeVjyKZKvcxogm&index=54

ATENA 2004	duet	team
1st place	Russia	Russia
2nd place	Japan	Japan
3rd place	USA	USA

https://www.youtube.com/watch?v=oItMwCqioYE Russia team
https://www.youtube.com/watch?v=k8kRoRIrbVo Russia duet

BEIJING 2008	duet	team
1st place	Russia	Russia
2nd place	Spain	Spain
3rd place	Japan	Japan

https://www.youtube.com/watch?v=omGmvT3AMyE
Russia duet
https://www.youtube.com/watch?v=9_LlQaCvlls Russia team

LONDON 2012	duet	Team
1st place	Russia	Russia
2nd place	Spain	Spain
3rd place	China	China

https://www.youtube.com/watch?v=YE5JZ7BStdI duets
https://www.youtube.com/watch?v=e2aIxqyVMew free team Spain

RIO DE JANEIRO 2016	duet	team
1st place	Russia	Russia
2nd place	China	China
3rd place	Japan	Japan

https://www.youtube.com/watch?v=50VqWQUqSto Russia duet
https://www.youtube.com/watch?v=JUYoOWPRRNM
Russia team free
https://www.youtube.com/watch?v=05lc2dBPCNA&lc=UgwkDsobFs25bonUq4l4AaABAg tehnical duet Japan

TOKYO 2021	duet	team
1st place	Russia	Russia
2nd plpace	China	China
3rd place	Ukraina	Ukraina

There you can see the highest level of technical skill and difficulty. The most complex supports, high-speed movement along the pool, quick unexpected changes in patterns, use of hybrids...

- In 2017, the International Swimming Federation renamed "synchronized swimming" to "artistic swimming„ to boosting the popularity of our sport
- Introduction a new event in the programme of the FINA World Championships: the Highlight Routine (with 10 swimmers).
- Required elements for this routine include a minimum of four acrobatic movements (jumps, throws, lifts, stacks or platforms), a connected or intertwined action, and a float to give a kaleidoscopic effect. It lasts 2:30 minutes
- https://www.youtube.com/watch?v=crx3pLWooaY&t=8s highlight Greece 2015
- https://www.youtube.com/watch?v=SAZhVgp3UQ8

highlight Spain 2019

- **Men in synchronized swimming**
- Until 2015, synchronized swimming was considered an exclusively women's sport, although the first "artistic swimmers" were men, and the first figure swimming competition was the men's competition in Berlin in 1891
- Only in 1920 began the mass participation of women-synchronized swimmers in competitions, which gradually ousted men from the our sport.
- In 1978, the US changed its rules to again allow men to compete with women

- Mixed duets further popularized synchronized swimming
- Thanks to the men, athletes can bring more athleticism and high support to their programs
- Plus, mixed couples can play new stories on the water, thus adding a new stream to the creative component of our sport

- At the 2015 FINA World Championships, FINA introduced a new mixed duet discipline
- The men athlets were Bil May (USA), Benoit Bofils (France), Alexander Maltsev (Russia) and Giorgio Minisini (Italiy)
- https://www.youtube.com/watch?v=kZnlropXJTg&t=11s (RUS Duet Mixed Free Final Glasgow European Championships 2018)
- The 2016 European Aquatics Championships was the first time that men were allowed to compete in the European Championships

Dženi Grej je bila član prvog tima sinhronog plivanja Velike Britanije, pre nego što se posvetila trenerskom poslu. Nakon što je inicijalno počela svoj put kao skakačica u Slough and District Diving Club, a posle u Metropolitan School of Diving, Grej je učestvovala u nastupima sinhronog plivanja. Počela je da se razvija u sinhronom plivanju kada je sinhrono plivanje postalo takmičarski sport u Engleskoj i na kraju se takmičila na prvom Svetskom prvenstvu u Beogradu 1973. godine. Nakon što je prestala sa takmičenjem, Grej se posvetila predavanju i trenerskom poslu. Postala je Nacionalni zvaničnik za razvoj sinhronog plivanja i skokova. Bila je uključena u postavljanju trenerskih kvalifikacija, primarno za sinhrono plivanje.

Grej je takodje član Tehničkih komiteta LEN i FINA i bila je predsedavajuća ASA Tehničkog komiteta za sinhrono plivanje od 2004. do 2015.

Sudila je na velikom broju takmičenja visokog nivoa, kao što su Svetska Prvenstva, Igre Commonwealth – a i Olimpijskim igrama, gde je takodje bila kao i evaluator.

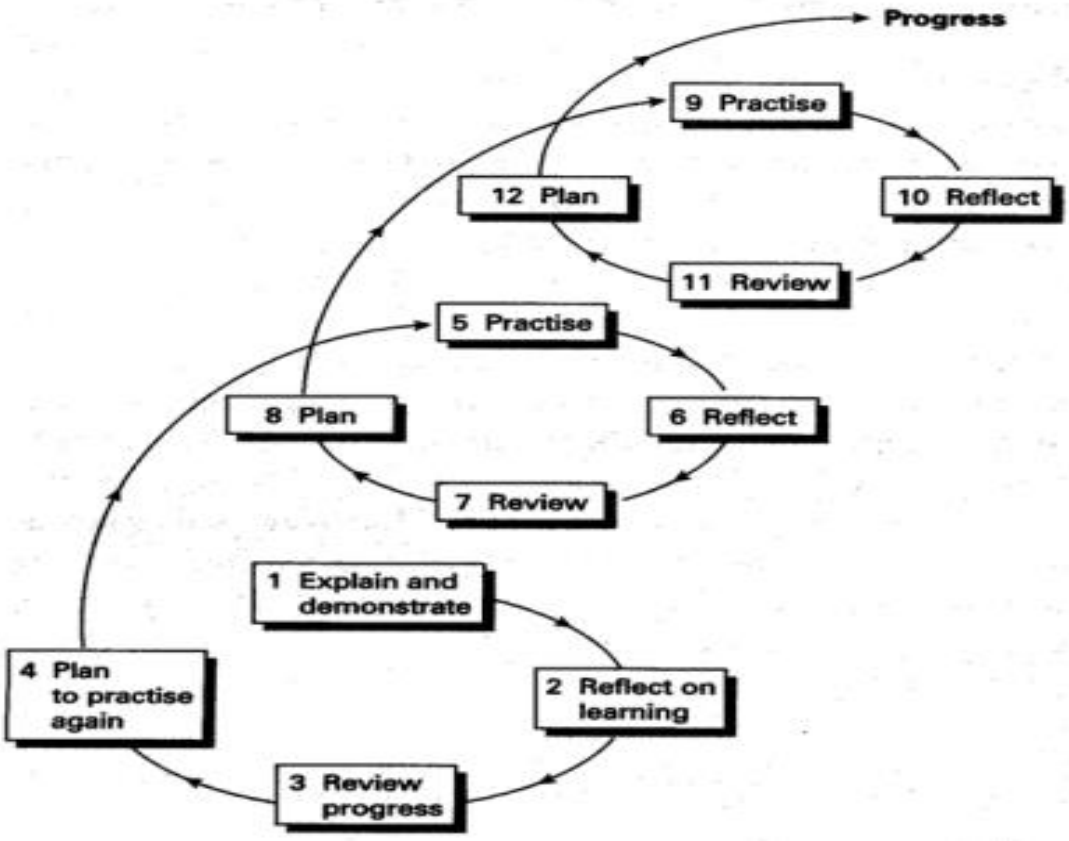
Grej, takodje, vodi trenerske seminare širom sveta i predstavila je intenzivne kurseve na svake dve godine za predavače i trenere u Engleskoj koji su ključni u osiguravanju da se naše takmičarke mogu takmičiti na medjunarodnom nivou i budu uspešne u tome.

Ona je, takodje, osmislila i implementirala kurs Trenerskih studija na Oxford Brookes Univerzitetu, ima mnogobrojne napisane knjige o sinhronom plivanju i, i dalje, drži gostujuća predavanja.

- **Osnovni principi koreografije**
- **Muzička interpretacija**
- **Vežbe za koreografiju**

- Work for perfection. Never be satisfied
- If doing drills ensure you correct and work for perfection. Don't just do!
- Ignore the deck work but start at the beginning of the routine and work through in a logical manner
- Check everyone knows the exact counts for every movement
- Give cap counts
- Walk through exactly the same way as you want them to swim it
- Use blindfolds for walkthroughs

The 'practice spiral' technique



REMEMBER

- Plan backwards from the Games/Championships
- Each competition is preparation for the next
- Everybody must learn through the experience gained by the competition

Phrasing of music

- You must listen to the phrasing of the music and ensure the movements fit the phasing
- If possible look at the written score of the music

Effort Actions

Action	Time	Weight	Space
Thrusting	Sudden	Firm	Direct
Slashing	Sudden	Firm	Flexible
Floating	Sustained	Fine Touch	Flexible
Gliding	Sustained	Fine Touch	Direct
Wringing	Sustained	Firm	Flexible
Pressing	Sustained	Firm	Direct
Flicking	Sudden	Fine touch	Flexible
Dabbing	Sudden	Fine touch	Direct

Rhythm

Rhythm has an energising, infectious quality in artistic swimming movements, for spectators as well as for performers. 'It's not the difficulty of the dance which makes the audience happy, it's rhythm'.

Objectives

Do you understand the need for music which includes a variety of efforts and also the need to teach the swimmers how to move in a variety of ways?

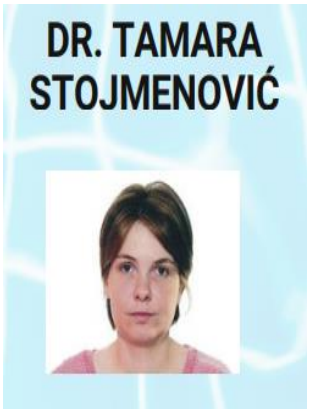
BEOGRAD, SRBIJA

MODUL 4

Petak 26.11. – Nedelja 28.11.2021.

Dr Tamara Stojmenović – povrede, prevencija i rehabilitacija;

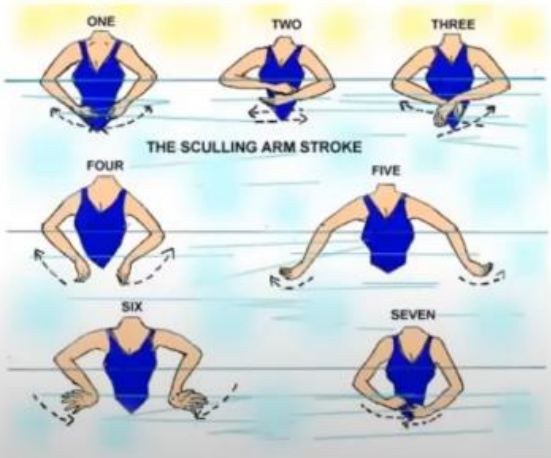
Vaerija Petrasina – sudjenje, treninzi akrobatike, inovacione grupe, duskusija o mogućim promenama FINA pravila, promocija sinhronog plivanja, ostalo;



Dr Tamara Stojmenović – diplomirala 2010. na Medicinskom fakultetu u Beogradu; doktorat završila na Medicinskom fakultetu u Kragujevcu. Odbrana doktorske teze na temu: Uticaj košarkaškog treninga na rast i razvoj devojčica u pubertetu i tinejdžerskom dobu. Dr Tamara Stojmenović je asistent profesora na Univerzitetu Singidunum – Fakultet fizičkog vaspitanja i sportskog menadžmenta. Bivša profesionalna košarkašica. Pre svega, posvećena dijagnozi i tretmanu povreda u sportu (fizikalni i ultrazvučni tretmani, prevencija i rehabilitacija povreda), kao i sportske kardiologije. Autor i ko-autor mnogobrojnih knjiga i naučnih radova u sportskoj medicine, dijagnozi i kontrolisanju nivoa bolova.

- **Najčešće povrede u sinhronom plivanju**
- **Prevencija od povreda i rehabilitacija**

SCULLS



- differnet types: support, standard, torpedo, split-arm, barrel and paddle scull
- same impact on **shoulder joint** and **neck**
- intense repetitive hand movements which most commonly cause overuse injuries of shoulder and neck region

Co-funde
Erasmus
of the Eu

LIFTS

- formed underwater and as swimmers propel themselves towards the surface, they stay in formation and add more elements like acrobatics
- they are often practiced on dry land when **acute injuries** can occur due to falls (bone fractures, joint dislocations and sprains, contusion injuries, concussions...)

Co-funde
Erasmus
of the Eu

EGGBEATER KICKS

- it is a stable and efficient way for synchronized swimmers to attain the necessary height to perform moves above the water, but...
- involves performing intense movements in the **knee joint** and also impacts **lumbar region** and hip joint

ROTATOR CUFF PAIN - kinesitherapy

KNEE PAIN – kinesitherapy (prevention and treatment)

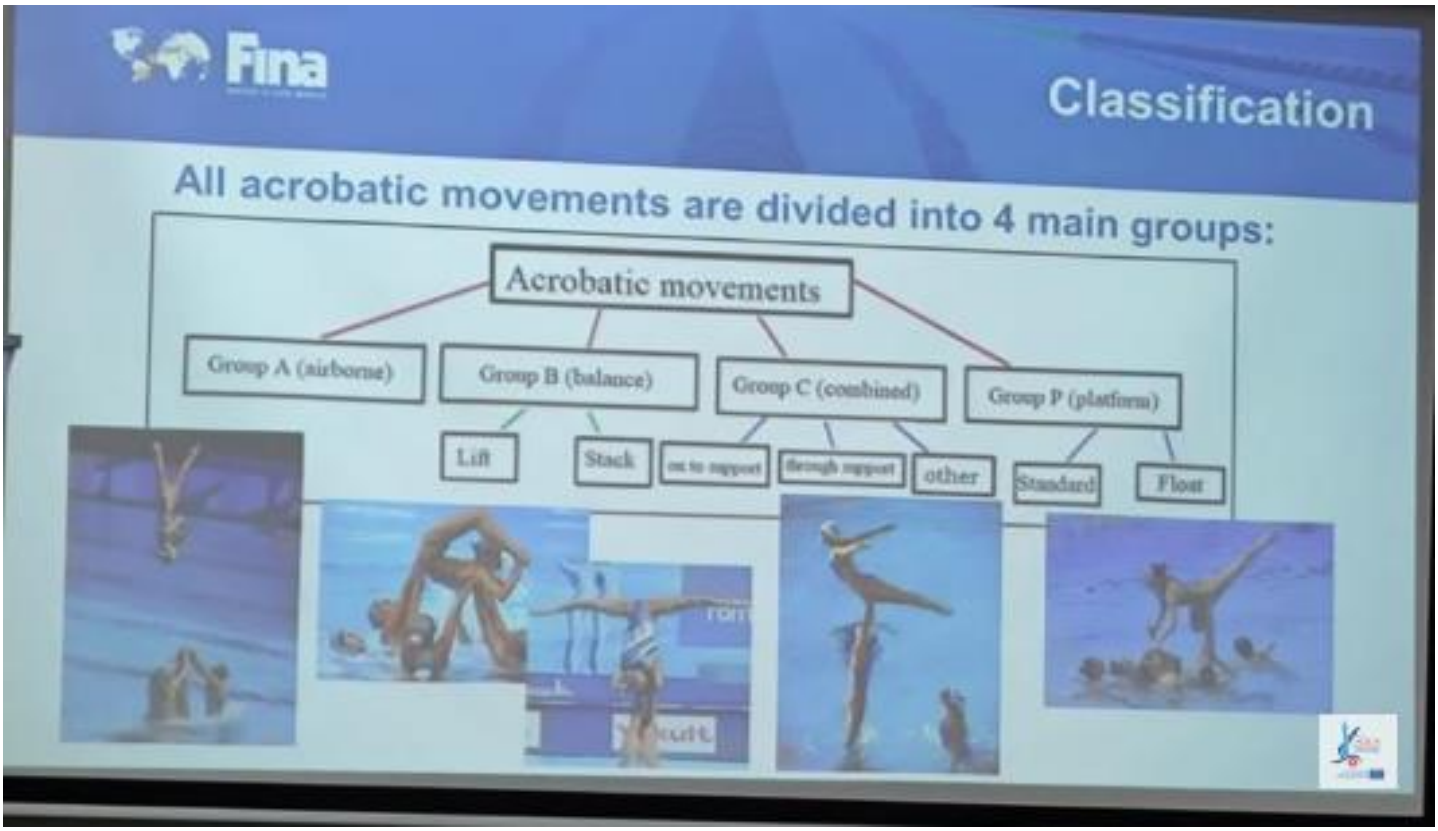
Radno iskustvo:

- Trener sinhronog plivanja u specijalizovanoj sportskoj školi “Cristal”, rad sa svim starosnim grupama, primarno od 5 do 10 godina. (Septembar 1998. – Avgust 2005.)
- Glavni trener KSP Primorje Aqua Maris, Rijeka (2005. – traje)
- Trener nacionalnog tima Hrvatske (2005. – traje)
- Sudija u sinhronom plivanju (2009. – traje)

Obrazovanje:

- Ruski državni fakultet za sport, turizam i kulturu (1998. – 2004.)
- Ruski državni fakultet za koreografiju u pozorištu (1998. – 2004.)
- Hrvatska sudijska škola za sinhrono plivanje (Mart 2007.)
- Uspešno završen program za Glavnog instruktora HSSP Sudijskog veća i položila ispit za državnog sudiju prve kategorije (2015.)
- Uspešno završene postdiplomske studije istraživanja teorije i prakse programa za trenere vodenih sportova (Jul 2008.)
- Uspešno završen program za Glavnog instruktora HSSP Sudijskog veća i položila ispit za državnog sudiju (April 2007.)
- Uspešno završen program za Glavnog instruktora HSSP Sudijskog veća i položila sudijski ispit (Mart 2007.)

- **Sudjenje, treninzi akrobatike, inovacione grupe, duskusija o mogućim promenama FINA pravila, promocija sinhronog plivanja, ostalo;**


Fina
Classification
All acrobatic movements are divided into 4 main groups:
Acrobatic movements
Group A (airborne)
Group B (balance)
Group C (combined)
Group P (platform)
Lift
Stack
other
Standard
Float


BALANCE AND PLATFORMS
2 "levels"
3 "levels", more people= lifted "out of water"


Fina
Synchronisation errors matter
Three levels of synchronisation/accuracy mistake or unequal actions:
- Minor/Small
- Obvious
- Major


SHOT ON MI 10T

ISKUSTVA I ZAKLJUČCI SVIH PARTNERA PROJEKTA

Kao koordinatori ovog Erasmus+ projekta, zadovoljno zaključujemo ovaj projekat sa svim ispunjenim ciljevima.
Partneri na projektu su veoma zadovoljni što imaju priliku da saradjuju sa nama na ovom projektu, zahvaljujući kojem smo postali odlični saradnici i prijatelji za dugi niz godina.
Takodje, zadovoljni su što je finalna konferencija pokazala da su svi ciljevi ispunjeni, da su mogli da otvore debatuoko problema u sinhronom plivanju u svojim okruženjima i što imaju kontakt sa svim trenerima iz svih zemalja koje su učestvovale u projektu.
Partneri su izrazili interesovanje za neke buduće saradnje, koje će doprineti dodatnom obrazovanju trenera i doprineti nastanku novih klupskih takmičenja.

Glavni cilj ovog projekta je edukacija trenera u sinhronom plivanju, zato što verujemo da treneri sa Balkana nisu dovoljno edukovani.
Sa sjajnim predavačima, koji su medju najpoznatijima u svetu sinhronog plivanja, uspeli smo da zavirimo u detalje treninga, razumevanje metodologije odredjenih zadataka i kako da usvojimo i primenimo vežbe na takmičare različitih dobi.
Takodje, imali smo priliku da učimo od predavača koji su studirali sport kroz svoje sektore: doktori, nutricionisti i terapeuti.
Uzevši u obzir sate treninga, jasno je da nije bitna samo metodologija treninga, već i celokupan aspekt plivačice.

Zbog toga, postali smo svesni dijete koje moramo prepisati našim plivačicama, vežbe koje moramo primeniti da bi sprečili povrede, kao i rehabilitacione programe koje možemo primeniti tokom oporavka od povrede. Ovaj projekat nas je sasvim sigurno, obogatio znanjem koje ćemo moći da primenimo u daljem trenerkom radu.

Cilj projekta je da se razmene iskustva trenera iz zemalja učesnica projekta, koje se dokazalo kao odlična ideja. Ovim putem, imali smo priliku da saradjujemo sa drugim trenerima i različitim načinima rada, razmenimo iskustva i ostvarimo kontakt za neki budući vid saradnje.

SMERNICE ZA BUDUĆE AKTIVNOSTI

Usmeriti sve trenere na online kurseve FINA, gde će moći da nauče sve osnove sinhronog plivanja.
Takodje, omogućiti trenerima sate treninga gde će moći da primene sve što su naučili iz teorijskih lekcija.
Za trenere sa vise iskustva, treba organizovati kurseve sa predavačima koji su upoznati sa najnovijim metodologijama rada.
Čvrsto verujemo da ćemo moći da oformimo još jedno takmičenje gde će Balkanske zemlje moći da učestvuju. Ovo takmičenje će biti prilika za plivačice da steknu iskustvo, pripreme se za nacionalna prvenstva i stvore neka nova prijateljstva.

Organizacija kampova:
U pripremnim fazama trenažnog procesa, pripreme treba orgnizovati tako da će odredjena uzrasna kategorija učestvovati.
Ne samo da će imati priliku da treniraju sa ostalim plivačicama, nego će mnogo iskusniji treneri koji su imali dodira sa svetskom sinhronom elitom biti prisutni na treninzima. To će biti prilika za trenere da uče od najboljih, ali i da spoznaju šta treba da primene u svom radu.