



**Alessandra
Amato**

Nazionalità: Italiana

CONTATTI



(Abitazione)



ESPERIENZA LAVORATIVA

Visiting scholar

University of Granada

Nel settembre 2022 ho trascorso una settimana di formazione presso l'Università di Granada, dove ho partecipato ad alcune sessioni di valutazione con strumenti come DEXA e QCT, BIA, DYNASYSTEM... Inoltre ho tenuto un meeting sul mio ultimo lavoro sull'effetto dell'allenamento di resistenza nel morbo di Parkinson sotto la supervisione del dottor Luis Gracia Marco.

08/11/2021 – 28/04/2022 - Boulder, Stati Uniti

Visiting scholar

Integrative Physiology department, University of Colorado Boulder

Presso il Dr. Roger Enoka's Neurophysiology of Movement Laboratory ho contribuito alla realizzazione del progetto "Tempo-controlled hip abduction and ankle dorsiflexion resistance training does not improve postural sway in older Adults" lavorando con elettromiografo di superficie, accelerometri per l'analisi del movimento, pedana stabilometrica, trasduttori di forza per la valutazione della stabilità della contrazione isometria. Inoltre, ho collaborato in un secondo progetto con l'utilizzo del grooved pegboard test ed un nuovo strumento per la rilevazione della attività delle unità motorie dei muscoli del capo coinvolti nella performance dello stesso pegboard test. Infine, preparavo al microscopio ottico elettrodi sterili sub-cutanei.

01/02/2021 – 30/07/2021 - Novi Sad, Serbia

Visiting scholar

University of Novi Sad

Durante il II anno del corso di dottorato in Health Promotion and Cognitive Sciences (XXXIV ciclo) ho intrapreso un percorso di ricerca in collaborazione con la Faculty of Sport and Physical Education, University of Novi Sad (Serbia), certificato. Il percorso, volto al miglioramento delle competenze in ambito di nutrizione sportiva, iniziato da remoto durante la pandemia (2020), ha prodotto anche una pubblicazione scientifica che revisiona la letteratura studiando l'impatto che dieta e dell'attività fisica hanno sulla salute delle ossa nei bambini e negli adolescenti (doi=10.3389/fendo.2021.704647).

01/09/2017 – ATTUALE - Palermo, Italia

ISTRUTTRICE MINIBASKET

ASD HAPPY BASKET PALERMO

Mi occupo di sviluppare le abilità motorie e gli schemi motori di base attraverso l'insegnamento del gioco-sport minibasket nelle fasce d'età 6-7, 8-9, 9-10 anni. Responsabile della crescita fisica, tecnica e tattica dei giovani dai 12 anni in poi.

2017 – 2018 - Termini Imerese, Italia

Istruttrice sportiva

CONI

progetto CONI "sport di classe" presso le scuole elementari GARDENIA e PIRANDELLO di Termini Imerese. Affiancavo l'insegnante curriculare nella programmazione e gestione di lezioni di attività motoria

finalizzate allo sviluppo delle abilità motorie e sportive nei bambini dalla prima alla quinta classe della scuola primaria.

01/10/2017 – 30/11/2017 - Palermo, Italia

Istruttrice sportiva

ASD HAPPY BASKET PALERMO

progetto curriculare nelle scuole elementari “minibasket in classe”: avviare i bambini in età scolare alla scelta di una o più discipline sportive.

01/10/2014 – 31/05/2017 - Palermo, Italia

ISTRUTTRICE MINIBASKET

ASD SUPER...ABILE ONLUS

Mi occupavo di sviluppare le abilità motorie e gli schemi motori di base attraverso l'insegnamento del gioco-sport minibasket nelle fasce d'età 6-7, 8-9, 9-10 anni.

2015 – 2016 - Palermo, Italia

Istruttrice sportiva

ASD SUPER...ABILE ONLUS

Progetto curriculare nelle scuole elementari “Baskin”: insegnare, attraverso la pallacanestro adattata alle esigenze di soggetti diversamente abili, le abilità motorie e l'inclusione.

ISTRUZIONE E FORMAZIONE

18/11/2022 - Palermo, Italia

Dottorato di ricerca in “Health promotion and cognitive sciences”

Università Degli Studi di Palermo

Indirizzo via Giovanni Pascoli, 6, Palermo, Italia | **Sito Internet** <https://www.unipa.it/>

19/07/2017 - palermo, Italia

Laurea magistrale in scienze e tecniche delle attività motorie preventive e adattate LM/67 con votazione 110/110 e Lode

Università Degli Studi di Palermo

Indirizzo via Giovanni Pascoli, 6, Palermo, Italia | **Sito Internet** <https://www.unipa.it/>

22/07/2015 - Palermo, Italia

Laurea in Scienze delle attività motorie e sportive con votazione 110/110 e Lode

Università Degli Studi di Palermo

Indirizzo via pascoli, 6, Palermo, Italia

22/04/2017 – ATTUALE

Pearson LCCI level 2 Certificate in ESOL international (CEFR CI) (Accreditation No. 601/5626/0)

“San Gerlando Vescovo Formazione” (PEARSON LCCI certificate)

COMPETENZE LINGUISTICHE

LINGUA MADRE: italiano

ALTRE LINGUE:

inglese

Ascolto
B2

Lettura
B2

Produzione orale
B2

Interazione orale
B2

Scrittura
B2



COMPETENZE DIGITALI

Le mie competenze digitali

Padronanza del Pacchetto Office (Word Excel PowerPoint ecc) / Social Network / Gestione autonoma della posta e-mail / Microsoft Office / Utilizzo del browser / Posta elettronica / Windows / Google / office / Outlook / GoogleChrome / Buona padronanza del pc dei software ad esso correlati e del pacchetto Office / Instagram / InternetExplorer / Android / Mozilla Firefox / Iphone / Gmail / - Buone competenze nell'uso delle piattaforme Windows MacOS Android iOS / Skype / Gestione PDF / Whatsapp / Editing foto e video / Google Drive / Configurazioni reti Wireless / utilizzo di piattaforme di archiviazione e gestione dati come DropBox Google Drive e WeTransfer / Social

PUBBLICAZIONI

Tempo-controlled resistance training of the hip abductors and ankle dorsiflexors with light loads does not improve postural sway in older adults

2022 <https://link.springer.com/article/10.1007/s00221-022-06477-6>

Carzoli, J.; Koger, K.; Amato, A.; Enoka, R.M.

The force steadiness capabilities of the hip abductors and ankle dorsiflexors can explain a significant amount of the variance in postural sway during four types of standing balance tests. Control over balance, as well as force steadiness, generally worsens with aging, although the latter can be improved with unique training interventions. The purpose of our study was to assess how tempo-controlled, light-load resistance training of the hip abductors and ankle dorsiflexors influences performance in clinical movement tests, postural sway, muscle strength, and force steadiness in older adults. Participants ($n = 28$, 70 ± 7 years, 8 men) completed nine training sessions for either the hip abductors or ankle dorsiflexors in the nondominant leg. Training involved lifting a load equal to 15% of the maximal force achieved during an isometric contraction. Linear mixed-effects models revealed no changes ($p > 0.05$) in Sit-To-Stand test, Timed Up-and-Go test, maximal voluntary contraction (MVC) torque, or postural sway from before to after either training intervention. Only the dorsiflexor group significantly improved nondominant leg dorsiflexion force steadiness, but this did not translate to any other tasks. However, absolute and relative measures of MVC torque and force steadiness of the hip abductors and ankle dorsiflexors in the dominant and nondominant legs could predict sway-area rate in each of the four standing balance conditions. The responsiveness of leg muscles to light-load steadiness training in older adults appears to depend on the type of exercises performed during the intervention.

Effects of Mediterranean Diet Combined with CrossFit Training on Trained Adults' Performance and Body Composition

2022 <https://www.mdpi.com/2075-4426/12/8/1238>

Ficarra, S., Di Raimondo, D., Navarra, G.A., Izadi, M., Amato, A., Macaluso, F.P., Proia, P., M

CrossFit is a high-intensity training discipline increasingly practiced in recent years. Specific nutritional approaches are usually recommended to maximize performance and improve body composition in high-intensity training regimens; notwithstanding, to date there are no targeted nutritional recommendations for CrossFit athletes. The Mediterranean Diet (MD) is a diet approach with a well-designed proportion of macronutrients, using only available/seasonal food of the Mediterranean area, whose health benefits are well demonstrated. No studies have evaluated this dietary strategy among CrossFit athletes and practitioners; for this reason, we tested the effects of 8 weeks of MD on CrossFit athletes' performance and body composition. Participants were assigned to two groups: a diet group (DG) in which participants performed CrossFit training plus MD, and a control group (CG) in which participants partook in the CrossFit training, continuing their habitual diet. Participants were tested before and after the 8 weeks of intervention. At the end of the study, no significant difference was noted in participants' body composition, whereas improvements in anaerobic power, explosive strength of the lower limbs, and CrossFit-specific performance were observed only in the DG. Our results suggest that adopting a MD in CrossFit athletes/practitioners could be a useful strategy to improve specific strength, endurance, and anaerobic capacity while maintaining overall body composition.

Is the Secret in the Gut? SuperJump Activity Improves Bone Remodeling and Glucose Homeostasis by GLP-1 and GIP Peptides in Eumenorrheic Women.

2022 <https://doi.org/10.3390/biology11020296>

Vasto, S., Amato, A., Proia, P., & Baldassano, S.

We showed that twenty weeks of SuperJump activity, an innovative workout training performed on an elastic minitrampoline, reduced bone resorption and increased bone formation in eumenorrheic women acting on the key points of the regulation of bone metabolism. The present study analyzed whether the gastrointestinal hormones are involved in the mechanism of action and if it has an impact on glucose homeostasis. The control group was composed of twelve women, similar to the exercise group that performed the SuperJump activity for twenty weeks. The analysis was performed on blood samples and investigated GLP-1, GIP, GLP-2, PYY, ghrelin, glucose, insulin, insulin resistance, β -cell function, and insulin sensitivity. The results showed that the activity contributes to raising the GLP-1 and GIP levels, and not on GLP-2, PYY, and ghrelin, which did not change. Moreover, SuperJump activity significantly reduced fasting insulin, glucose, insulin resistance, and increased insulin sensitivity but did

not affect beta-cell function. These data suggest that GLP-1, and GIP are involved in the mechanism of action that improves bone and glucose homeostasis following 20 weeks of SuperJump activity in eumenorrheic women.

Dare to jump: The effect of the new high-impact activity SuperJump on bone remodeling. A new tool to maintain fitness during COVID-19 home confinement

2022 <https://doi.org/10.5114/biolSport.2022.108993>

Vasto, S., Amato, A., Proia, P., Caldarella, R., Cortis, C., & Baldassano, S.

SuperJump is a high-impact activity performed on an elastic trampoline that mixes aerobic and anaerobic exercises already proposed as a home-based activity for preventing a sedentary lifestyle. We determined in a randomized controlled trial whether 20 weeks of SuperJump activity would promote bone formation and reduce resorption in eumenorrheic women. Twenty-four women were randomized to a non-exercise group (control group) or an exercise group that performed SuperJump activity three times a week for 20 weeks. Blood samples were collected in both groups at baseline and at the end of the 20 weeks and compared within and between the groups for C-terminal telopeptide (CTX), a marker of bone resorption, osteocalcin, a marker of bone formation, and the markers of bone metabolism parathyroid hormone (PTH), calcitonin, albumin-adjusted calcium (Aa calcium), vitamin D, phosphate and potassium. After 20 weeks of SuperJump activity, levels of CTX were significantly reduced while levels of osteocalcin were increased. PTH, calcium, and potassium were involved in the mechanism of action because PTH was reduced while calcium and potassium were increased. Calcitonin, vitamin D, and phosphate levels did not change. These data suggest that SuperJump activity is able to reduce bone resorption and improve bone formation by acting on essential regulators of bone metabolism. They also suggest that SuperJump training may be used as a valuable intervention to prevent the occurrence of osteoporosis in aging because it improves bone homeostasis in favor of bone formation and could counteract a sedentary lifestyle, such as during COVID-19 home confinement, which could itself contribute to the variation of bone metabolism.

Lactate threshold training program on patients with multiple sclerosis: a multidisciplinary approach

2021 <https://doi.org/10.3390/nu13124284>

Amato, A., Ragonese, P., Ingoglia, S., Schiera, G., Schirò, G., Di Liegro, C.M.,... & Proia P.

Physical activity could play a key role in improving the quality of life, particularly in patients with nervous system diseases such as multiple sclerosis (MS). Through lactacid anaerobic training, this study aims to investigate the effects at a bio-psycho-physical level to counteract the chronic fatigue associated with the pathology and to improve mental health at a psychological and neurotrophic level. Eight subjects (age: 34.88 ± 4.45 years) affected by multiple sclerosis were involved. A lactate threshold training program was administered biweekly for 12 weeks at the beginning of the study (T0), at the end of the study (T1), and at 9 months after the end of the study (T2), with physical, psychological, and hematochemicals parameters, and dietary habits being tested. The results obtained confirmed that Lactaid exercise can influence brain-derived neurotrophic factor (BDNF) levels as well as dehydroepiandrosterone sulfate (DHEAS) levels. In addition, levels of baseline lactate, which could be best used as an energy substrate, showed a decrease after the protocol training. Self-efficacy regarding worries and concerns management significantly increased from T0 to T1. The eating attitudes test (EAT-26) did not highlight any eating disease in the patients with a normal diet enrolled in our study. Physical exercise also greatly influenced the patients psychologically and emotionally, increasing their self-esteem. Lactate threshold training, together with dietary habits, appears to exert synergic positive effects on inflammation, neural plasticity, and neuroprotection, producing preventive effects on MS symptoms and progression.

Taopatch® combined with home-based training protocol to prevent sedentary lifestyle and biochemical changes in ms patients during covid-19 pandemic

2021 <https://pubmed.ncbi.nlm.nih.gov/34498450/>

Amato, A., Messina, G., Feka, K., Genua, D., Ragonese, P., Kostrzewa-Nowak, D.,... & Proia P

In Multiple sclerosis (MS) it is important to preserve the residual physiological functions of subjects. The present study to investigate the influence of nanotechnological device treatment combined with a home-based training program (TP) on lactate level, hand grip strength, and cervical mobility in MS patients. Seventeen MS patients were enrolled in the study and randomly assigned to an experimental group (EG) in which the Taopatch® nanotechnological device was applied or to a control group (CG). All the participants carried out a cervical range of motion (1) assessment and the hand grip test at baseline (T0) and after TP (T1), also investigating the lactate levels to figure out if there could be a correlation with the possible changes in the investigated parameters. The results showed no significant differences in both groups for ROM. As regards the hand grip test, EG showed a statistically significant improvement in strength for both hands, dominant ($p = 0.01$) and non-dominant ($p = 0.04$), while the CG showed an improvement only for the non-dominant hand ($p = 0.001$). No correlation was found between baseline lactate level and cervical ROM change. We can definitely conclude that exercise and Taopatch® can help to improve and maintain hand strength in MS subjects and also can prevent a sedentary lifestyle during the COVID-19 pandemic time. These are preliminary results that need further investigations, possibly increasing the sample size and lengthening the time of intervention.

The impact of diet and physical activity on bone health in children and adolescents.

2021 <https://www.frontiersin.org/articles/10.3389/fendo.2021.704647/full>

Proia, P., Amato, A., Drid, P., Korovljjev, D., Vasto, S., Baldassano, S.

There is growing recognition of the role of diet and physical activity in modulating bone mineral density, bone mineral content, and remodeling, which in turn can impact bone health later in life. Adequate nutrient composition could influence bone health and help to maximize peak bone mass. Therefore, children's nutrition may have lifelong consequences. Also, physical activity, adequate in volume or intensity, may have positive consequences on bone mineral content and density and may preserve bone loss in adulthood. Most of the literature that exists for children, about diet and physical activity on bone health, has been translated from studies conducted in adults. Thus, there are still many unanswered questions about what type of diet and physical activity may positively influence skeletal development. This review focuses on bone requirements in terms of nutrients and physical activity in childhood and adolescence to promote bone health. It explores the contemporary scientific literature that analyzes the impact of diet together with the typology and timing of physical activity that could be more appropriate depending on whether they are children and adolescents to assure an optimal skeleton formation. A description of the role of parathyroid hormone (PTH) and gut hormones (gastric inhibitory peptide (GIP), glucagon-like peptide (GLP)-1, and GLP-2) as potential candidates in this interaction to promote bone health is also presented.

Analysis of body perception, preworkout meal habits and bone resorption in child gymnasts

2021 <https://doi.org/10.3390/ijerph18042184>

Amato, A., Proia, P., Caldara, G.F., Alongi, A., Ferrantelli, V., Baldassano, S.

The beneficial effects of physical activity on body image perception and bone are debated among artistic gymnasts. Gymnasts seem to be at greater risk of developing body dissatisfaction, eating disorders and osteoporosis due to inadequate nutrition and attention to the appearance of the body. The objective of this work was to investigate the association between the artistic gymnast and a more favorable body image compared to their sedentary peers and if a preworkout high-carbohydrate meal (HCM; 300 kcal, 88% carbohydrates, 9% protein, 3% fat) or high-protein meal (HPM; 300 kcal, 55% carbohydrates, 31% protein, 13% fat) is able to attenuate bone resorption in young rhythmic gymnasts. Twenty-eight preadolescent female gymnasts were examined. Self-esteem tests were used to analyze body image perception. Preworkout eating habits were examined by short food frequency questions (FFQ) validated for children. The biomarker of the bone resorption C-terminal telopeptide region of collagen type 1 (CTX) was measured in the urine (fasting, postmeal and postworkout). Gymnasts reported higher satisfaction with their body appearance compared to sedentary peers. Of the gymnasts, 30% did not have a preworkout meal regularly, and the timing of the consumption was variable. Bone resorption was decreased by the HCM, consumed 90 min before the training, with respect to the HPM. The study suggests that playing artistic gymnastics is associated with a positive body self-perception in a child. The variability in preworkout meal frequency and timing need attention to prevent inadequate eating habits in light of the ability of the HCM to reduce acute bone resorption.

A pilot study on non-invasive treatment of migraine

2021 <https://pubmed.ncbi.nlm.nih.gov/33709650/>

Amato, A., Messina, G., Giustino, V., Brusa, J., Brighina, F., Proia, P.

The aims of this paper was to determine the effect of self-myofascial release (SMFR) on postural stability and to analyze if it can influence migraine condition. Twenty-five subjects (age 49.7 ± 12.5) affected by migraine were enrolled. Assessments included a stabilometric analysis in order to evaluate balance and plantar support, with eyes open (OE) and closed (CE); cervical ROM measurement; evaluation of upper limb strength through handgrip. All the analysis were carried out before and after the administration of a single SMFR protocol, using medium density small balls laid in the three most painful trigger points in migraine patients: trapezius, sternocleidomastoids and suboccipital muscles. Performing a T test for paired samples, there was a significant increase in two ranges of the stabilometric analysis: ellipse surface, both with open and closed eyes (p value EO = 0.05; p value EC = 0.04) and length of the sway path, but just with closed eyes (p value = 0.05). SMFR might have a positive impact on postural stability in subjects with migraine. Further investigation should be conducted to confirm the hypothesis.

Correlation between polymorphism of thymidylate synthase gene and toxicity response to treatment with 5-fluorouracil and capecitabine

2020 <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC7582406/>

Vitello, S., Di Liegro, I., Ricciardi, M.R., Verga, C., Amato, A., Schiera, G.,... & Proia, P.

Tumorigenesis is a multiphasic process in which genetic alterations guide the progressive transformation in cancer cells¹. In order to evaluate the possible correlation between some gene variants and the risk of the toxicity development onset, two of the polymorphisms of the thymidylate synthase (TYMS), rs34743033 (2R/3R) and rs16430 (DEL/INS) were investigated. We enrolled in our study 47 patients from the Hospital of Sicily. Our preliminary findings suggest that there could be a linkage between the genotypes discussed and the development of the toxicity following the chemotherapy

treatment. These results need to be confirmed by further studies, however this short paper offers some initial insight into the relationships between genetic background and the better outcome for patients.

Use of nutritional supplement to improve performance in professional soccer players: A case report.

2020 <https://doi.org/10.14198/jhse.2020.15.Proc2.20>

Messina, G., Francavilla, V.C., Giustino, V., Mingrino, O., Genovesi, F., Amato, A., Proia, P.

The aim of the study was to investigate the intake percentage and the satisfaction level of some nutritional supplements used by professional soccer players. Twenty-nine professional soccer players (age: 24.6 ± 5.2 years, body weight: 79.2 ± 4.9 kg, body height: 1.83 ± 0.05 m) belonging to a team of Serie A were interviewed on: frequency of use, tolerability, and acceptance of the supplements (creatine, β -alanine, whey protein, nitrates, vitamin D3, caffeine) proposed by the nutritionist team. This survey revealed a great interindividual variability on the intake of the proposed supplements. All respondents ($n = 29$) said they take cholecalciferol (vitamin D3), 17 out of 29 creatine, 14 out of 29 whey protein, and 10 out of 29 dietary nitrates. No participants declared to assume β -alanine or caffeine anhydrous. Cholecalciferol resulted the most accepted supplement, followed by creatine and whey protein. Study participants prefer to take dietary nitrates through the consumption of vegetable juices, primarily from fennel and celery juice, and only two out of twenty-nine regularly taking concentrated beet juice. Since none of the twenty-nine participants interviewed uses β -alanine and caffeine in anhydrous form, the daily contribution of caffeine is mainly guaranteed by the consumption of coffee.

Effects of protein supplementation in fitness world: a 12-week cross-over studio

2020 <https://doi.org/10.14198/jhse.2020.15.Proc2.22>

Amato, A., Baldassano, S., Proia, P., Messina, G., D'amico, G.

The aim of this project was to evaluate the effect of isolated protein supplementation in young amateur athletes. Sixteen subjects aged between 20 and 30 were recruited for this study. Before to start sports performance was assessed at T0, in all subjects, using physical performance test and evaluated body composition. Therefore, the subjects were randomly assigned in two groups (group A and B) of 8 subjects each. The group A start to intake 30 g of protein powder diluted in water after each training session (3 times a week) for six weeks (T0) whilst the group B was the placebo. After 6 weeks (T1), the measurement were repeated for all subjects and the group A became placebo and the group B started with the supplementation. At the end of 6 weeks (T2) we carried out all the tests were performed again. Results showed a significant improvement in almost all tests between T0 and T2 within the same group ($p < .05$), but not significant difference was found between the start and the end of protein's intake period in both groups. In conclusion, supplementation did not have affect the performance and body composition significantly. Instead, training seems to influence the performance more the supplementation.

Effects of combined exercise on psychological and physiological variables in cancer patients: a pilot study

2020 <https://www.actamedicamediterranea.com/archive/2020/medica-2/effects-of-combined-exercise-on-psychological-and-physiological-variables-in-cancer-patients-a-pilot-study>

Cataldi, S., Amato, A., Messina, G., Iovane, A., Greco, G., Guarini, A.,... & Fischetti, F.

The aim of this study was to investigate the effect of a short-term combined exercise intervention program on perceived self-efficacy, fatigue, lower back flexibility, balance and task specific functional mobility in cancer patients. Fifteen patients met all the eligibility criteria and were assigned to a single training group (range age, 22-75 years) that performed an 8-week intervention program (~ 60 min, 2d-wk-1). Each session included a progressive training of cardiorespiratory, resistance, flexibility and postural education exercises. Measures pre-intervention and post-intervention included psychological and physiological measurements. Adherence to training was high ($92.3 \pm 5.2\%$) and no major health problem were noted in the participants over the 8-week period. Measures of fatigue have significantly decreased ($p < 0.001$; -27.7%) and perceived capability to regulate negative affect ($p < 0.001$; $+18.2\%$) and to express positive emotions ($p = 0.003$; $+11.8\%$) improved between the pre and post-study measurements. Highly significant increases were observed in the trunk lateral flexibility test (L: $p < 0.001$; -13.2% ; R: $p < 0.001$; -12.8%), stork balance stand test (L: $p < 0.001$, $+30.1\%$; R: $p < 0.001$, $+66.7\%$), and in the number of standing up and sitting down from a chair within 30 seconds ($p < 0.001$; $+20.4\%$). Results suggest that a short-term combined exercise program may improve the physical fitness, functional capacity, capability to manage emotional life and reduce levels of perceived fatigue in cancer patients providing an important support to deal the physiological and psychological side effects. Specialists in Adapted Physical Education need to be involved in the biomedical staff because they are the only ones able to manipulate the training variables for the health and well-being benefit of the special populations.

Lactate level and handgrip test in migraine and fibromyalgia after self-myofascial release treatment.

2019 <https://doi.org/10.14198/jhse.2019.14.Proc5.23>

Messina, G., Amato, A., Brighina, F., Lo Monaco, A., Giustino, V., Brusa, J., Iovane, A., & Proia, P.

The Aim of the study was to determine the effect of self-myofascial release (SMFR) treatment on handgrip test score in patients with fibromyalgia and migraine, investigating also if the lactate levels influenced the result. Twenty-five subjects affected by migraine (age 49.7 ± 12.5 ; height 164.9 ± 6.62 cm; weight 68.6 ± 16.9 kg) and ten subjects affected by fibromyalgia (age 43.7 ± 21.2 ; height 158 ± 5.65 cm; weight 70 ± 28.9 kg) were enrolled in the study. The assessments included a handgrip test, in order to evaluate isometric strength of both hands and forearm muscles and the lactate levels evaluation. The treatment was performed in the three most painful trigger points indicated from subjects as to concern fibromyalgic and on the suboccipital muscles for the migraineurs subjects. The handgrip test score, at T0, showed respectively in fibromyalgia and migraine groups a result of $22,82 \pm 10,58$ and $24,74 \pm 9,13$ (kg) for the right hand and $23 \pm 8,59$ and $22 \pm 9,13$ (kg) for the left hand without any statistical significance difference. At T1 the handgrip test score showed a positive trend in increase in migraineurs ($23,23 \pm 8,18$ (kg) and $21,03 \pm 8,57$ left hand (kg)) but without a statistical significance difference; vice versa in fibromyalgic subjects ($24,95 \pm 8,65$ (kg) $22,29 \pm 10,90$ right hand (kg)). Given the interesting preliminary results it needs further studies to confirm the trend, increasing the number of the subjects and extends the treatment for a longer time.

● Efficacy of 12 weeks of proprioceptive training in patients with multiple sclerosis.

2019 <https://www.actamedicamediterranea.com/archive/2020/medica-2/effects-of-combined-exercise-on-psychological-and-physiological-variables-in-cancer-patients-a-pilot-study>

Proia, P., Amato, A., Puleo, R., Arnetta, F., Rizzo, F., Di Grigoli, L., ...& Messina, G

This pilot study aims to investigate if specific training protocol can improve the quality of life in people with multiple sclerosis through the improvement of some impaired ability like the balance. We enrolled in our project 20 subjects (age: $34,88 \pm 4,45$; height: $168,25 \pm 8,66$ cm; weight: $72,31 \pm 17,28$ kg) but only 5 completed the study. A proprioceptive training was administered for 12 weeks, 2 times a week, an hour for each session. At the beginning (T0) and at the end of the study (T1), static and dynamic balance parameters were tested. Statistical analyzes were performed using IBM SPSS Statistics 22. Changes in balance and strength between T0, T1 were evaluated using t Student test for paired data. Pearson linear correlation coefficient was used to investigate the correlations between all parameters analyzed. As regards static baropodometry, there was a statistic significant different between left forefoot load (T0 $54,25 \pm 2,5$ % and T1 $59,5 \pm 1,73$ %; $P < 0,05$) and left rearfoot load (T0 $45,75 \pm 2,5$ % and T1 $40,5 \pm 1,73$ %; $P < 0,05$). In dynamic baropodometry we gave more attention to three parameters: left length gait line (T0 $176 \pm 23,58$ and T1 $215 \pm 18,64$ (mm); $P < 0,05$), right surface (T0 $106,75 \pm 14,97$ and T1 $149 \pm 11,58$ (cm); $P < 0,05$) and right pressure point (T0 $1050 \pm 130,90$ and T1 $537,25 \pm 65,46$ (gr/cm); $P < 0,05$). In conclusion, it is possible to hypothesize that the application of proprioceptive treatment in patients with multiple sclerosis can improve gait stability and therefore the walking. However, further studies, with a greater number of subjects, are necessary to confirm this trend.

● Highlights on Recent Papers in Overtraining and Exercise Addiction

2019 <https://www.mdpi.com/2411-5142/4/4/68>

Bianco, A.; Ravalli, S.; Maugeri, G.; Amato, A.; Gentile, A.; Feka, K.; Thomas, E.; Musumeci, G.

We are glad to introduce the seventeenth Journal Club. This edition is focused on several relevant studies published in the last years in the field of Overtraining and Exercise Addiction, chosen by our Editorial Board members and their colleagues. We hope to stimulate your curiosity in this field and to share with you the passion for the sport seen also from the scientific point of view. The Editorial Board members wish you an inspiring lecture.

ATTIVITÀ SOCIALI E POLITICHE

01/09/2002 – 01/09/2015

● Scout A.G.E.S.C.I

Agrigento

Ho fatto parte dell'Associazione Guide E Scout Cattolici Italiani (AGESCI) in cui spirito di adattamento, condivisione, dialogo, apertura al prossimo e ai più deboli sono punti cardine e dove ho acquisito importanti competenze nella cittadinanza attiva, nel rispetto delle regole, nel rispetto del mio Paese e delle diversità. All'interno dell'AGESCI ho ricoperto il ruolo di capo E/G e L/C come educatore e organizzatore di attività ludiche e formative nelle fasce d'età 8-12 anni e 12-16 anni

2001 – 2016

● Giocatrice di Pallacanestro

Sicilia

ho fatto parte di diverse società sportive dilettantistiche dalla stagione 2000-2001 alla stagione 2015-2016 allenandomi in gruppo con le seguenti squadre:

- ASD Pallacanestro 80 Agrigento

- ASD Libertas Agrigento
- ASD Venus Racalmuto
- ASD New Basket 2013 Porto Empedocle
- Stella Basket Palermo

PATENTE DI GUIDA

- **Patente di guida:A1**
- **Patente di guida:B**

CONFERENZE E SEMINARI

04/11/2022 – 06/11/2022 > - Milano

- **XIII Congresso Nazionale SISMeS 2022, Research and Training Applied to Movement and Sport Sciences**

Oral presentation:

"Resistance training for resistant bones: how to slow bone mineral density loss in Parkinson's disease"

06/04/2022 – 09/04/2022 > - Torino

- **• 94° Congresso della Società Italiana Biologia Sperimentale**

Abstract submitted:

"Development of a home-based training program for patients with Parkinson's disease: neurobiological and motor skills effect"

22/05/2022 – 24/05/2022 > - Milano

- **• The 24th annual European Congress of Endocrinology™ (ECE)**

Abstract submitted and Poster presentation:

"SuperJump training in eumenorrhic women and gut peptides: a randomized controlled study about the mechanism of action on bone and glucose homeostasis"

08/04/2022 – 10/04/2022 > - Rocky Mountain, Colorado (USA)

- **• Rocky Mountain American Society of Biomechanics.**

Oral presentation: "Tempo-controlled hip abduction and ankle dorsiflexion resistance training does not improve postural sway in older Adults"

08/10/2021 – 10/10/2021 > - Padova

- **• XII Congresso Nazionale SISMeS 2021, Research and Training Applied to Movement and Sport Sciences**

Poster presentation:

"The efficacy of anaerobic training on multiple sclerosis symptoms management"

22/04/2021 – 25/04/2021 > - Palermo

- **• 93° Congresso SIBS, Sessione: 8 scienza e medicina dello sport e dell'esercizio fisico**

Oral presentation:

"Effect of long-term superjump® training on bone remodeling and metabolism in women";

Abstract submitted:

"Is hypoxia-inducible factor (hif-1) alpha is involved in taravana syndrome?"

01/06/2021 – 26/06/2021 > - online

- **1st International Electronic Conference on Biomedicine. Session-Translational Biomarkers in Clinical Biomedicine and Precision Medicine Personalized training to prevent osteoporosis: Submission ID: sciforum-044542**

Abstracts submitted:

“What about jumping with music on a mini trampoline?”;

“Is the wellness of the gut the wellness of the whole body? Gut peptides, glucose homeostasis, and training with SuperJump®”.

11/01/2021 – 25/01/2021 > - online

**The 3rd International Electronic Conference on Environmental Research and Public Health —Public Health Issues in the Context of the COVID-19 Pandemic
11/01/2021 - 25/01/2021 Infectious Disease, Mental Health, Reproductive Health, Covid, Global Heal**

Abstracts submitted:

“Can specific pre-workout meals reduce bone resorption in young gymnasts?” (doi:10.3390/ECERPH-3-09002);

“Effect of training with Supejump® on bone metabolism in women”(doi:10.3390/ECERPH-3-09082)

16/11/2019 – 17/11/2019 > - Madrid

• ESNS international congress

Poster presentation:

“Nutrition supplementation and athletic performance improvement in equestrian athletes of Jumping and Dressage”.

27/09/2019 – 29/09/2019 > - Bologna

XI Congresso Nazionale SISMeS 2019, Research and Training Applied to Movement and Sport Sciences.

Poster presentation:

“Carbohydrates consumption pre-exercise attenuate bone resorption marker in young female gymnasts”.

16/11/2018 – 17/11/2018 > - Roma

ESNS 2018, sport nutrition: from Lab to the field held

Oral presentation (**Awarded**) and poster presentation:

“Relationship between energy metabolism and bone metabolism: a pilot study on gymnasts”.

HOBBY E INTERESSI

Suonare la chitarra

Suono la chitarra da autodidatta dall'età di 10 anni, questo ha contribuito ad aumentare le mie capacità comunicative ed organizzative

Hiking, camping

Amo camminare e campeggiare nella natura. Questo mi consente di visitare posti nuovi e sfidare la mia resistenza alla fatica

Basket

La mia passione più grande è il basket, sport che pratico e adesso insegno.

CAPACITÀ E COMPETENZE TECNICHE

2017 – ATTUALE

Utilizzo attrezzature specifiche nella valutazione della prestazione atletica e test motori

- Cardiosfrequenzimetro
- Bioimpedenziometro
- plicometro
- lattacidometro
- EMG
- Handgrip
- pegboard test
- Accelerometro
- optojump
- pedana baropodometrica...

Autorizzo il trattamento dei miei dati personali presenti nel CV ai sensi dell'art. 13 d. lgs. 30 giugno 2003 n. 196 - "Codice in materia di protezione dei dati personali" e dell'art. 13 GDPR 679/16 - "Regolamento europeo sulla protezione dei dati personali".

[Redacted signature]