

DEPARTMENT OF EXERCISE AND SPORT PERFORMANCE

E-News | Summer 2023 | <https://www.une.edu/wchp/esp>

APPLIED EXERCISE SCIENCE

APPLIED EXERCISE SCIENCE

The Applied Exercise Science (AES) program would like to congratulate the 2022 Northeast Regional Chapter of the American College of Sports Medicine (NEACSM) back to back College Bowl Champions: Kyle Poulin, Jon Chappel and Lindsay Smith (AES class of 2023). This amazing team will be competing in the ACSM National College Bowl in Denver, CO in June 2023.

On May 20, 2023 the AES major will graduate 42 students. Of those students 20% have secured full-time employment and 68% were accepted to graduate or professional school for a total of 88% placement at graduation. Congratulation class of 2023!



ATHLETIC TRAINING

AES and AT Students and Faculty Visit US Olympic & Paralympic Training Center in Lake Placid, NY

25 students and faculty from the department returned to the USOPTC in Lake Placid in March 2023 for an exclusive opportunity to live on campus with winter athletes in training and meet with staff from the Sports Medicine and Strength & Conditioning departments. The group was also treated to a "backstage pass" experience at the newly renovated Mt. Van Hoevenberg bobsled & luge facility during international competition, thanks to Ben Towne, MA. ATC (former UNE Clinical Instructor) who is now employed full-time as an AT at the USOPTC.





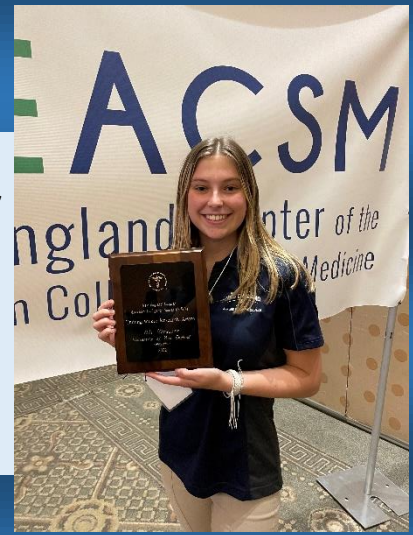
Mackenzie Burke (AES 23') and Abigail Bagnoli (AES 23') were awarded the Outstanding Student Major Awards at the annual Maine Association of Health, Physical Education, Recreation and Dance Conference at the Samoset Resort in Rockport, ME on November 7, 2022.

Abigail Bagnoli (AES 23') was awarded the 2023 Westbrook College of Health Professions (WCHP) Biddeford Campus Maroon Award at the WCHP Bachelorette Ceremony on May 19, 2023. The WCHP Maroon Award is highest honor bestowed upon an undergraduate senior student on the Biddeford Campus. This honor is based on the criteria of being a role model for other students in his or her ability to demonstrate and maintain high academic standards, superior leadership qualities, collaborative working relationships, and service to improve the quality of life for others.



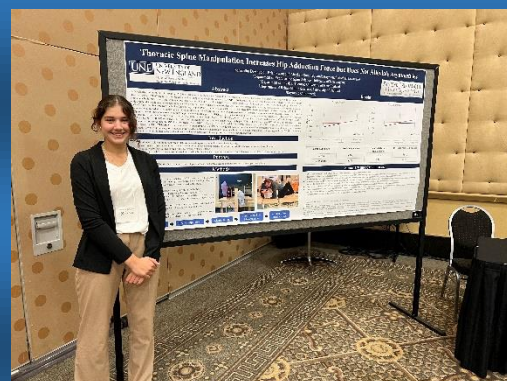
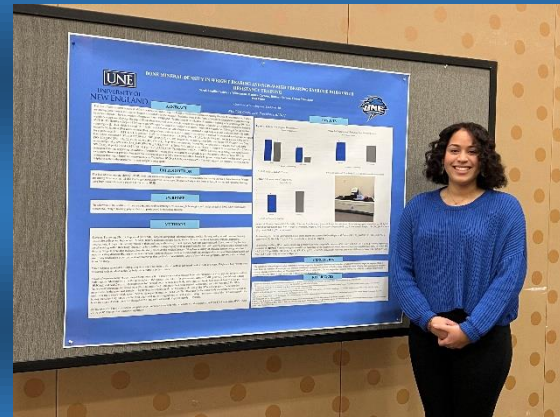
Mackenzie Burke (AES 23') was awarded the AES Outstanding Academic Achievement Award at the WCHP Bachelorette Ceremony on May 19, 2023.

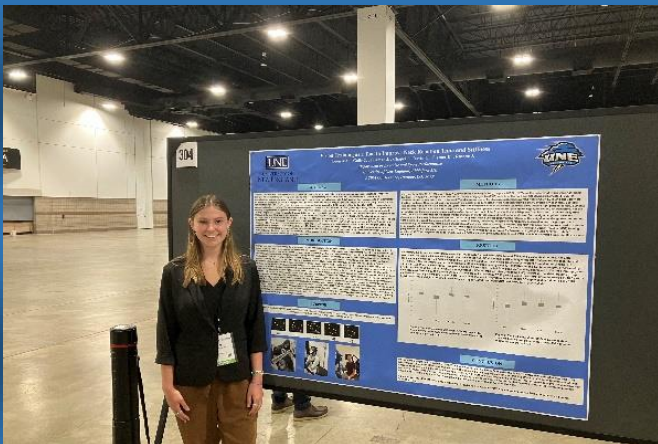
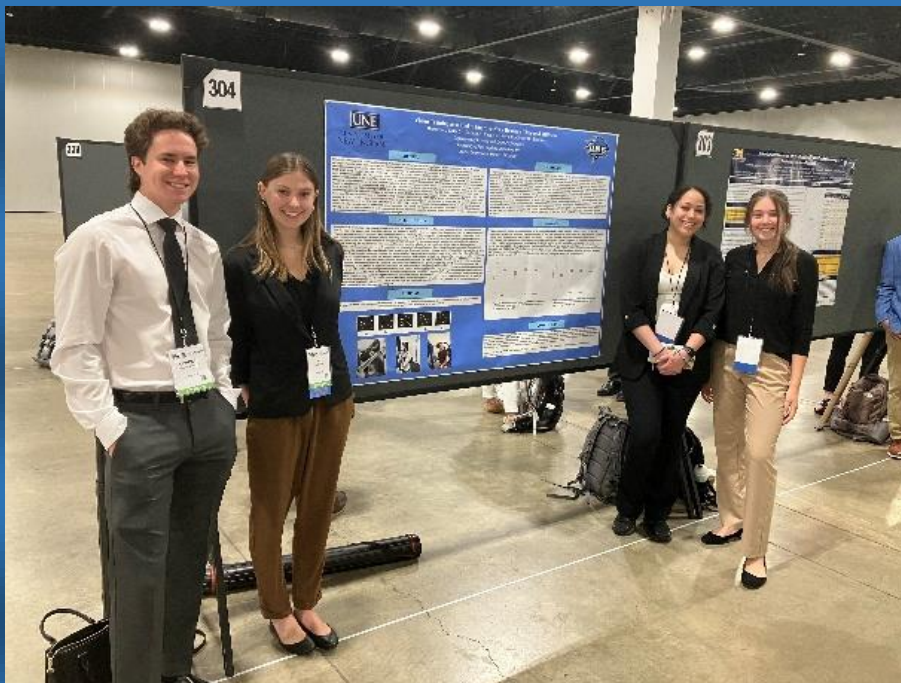
Alison Dresser, class of 2023 received the New England American College of Sports Medicine Undergraduate Research Grant award for her research entitled **“Postural Effects on Power Outputs and Lactate Recovery During the Wingate Test”**. Her study is investigating different postures of sitting, standing, and a combination of sitting and standing and how those different postures affect Wingate Performance. Ali plans on attending UMASS Boston next year to pursue her masters in exercise physiology. Congratulations Ali!!!



Several students presented their research throughout the year at both the New England American College of Sports Medicine conference in Providence, Rhode Island (October 2022), and again at the American College of Sports Medicine Annual Meeting in Denver, Colorado (June 2023). The students were Alison Dresser (class 2023), Sarah Familia Castro (class 2023), Samantha DeAngelo (class 2023), and Nick Campbell (class 2024). In addition to presenting at these professional conferences, these students presented their research to the UNE WCHP community at the WCHP Student Research Day in May, 2023. These research presentations represent some of the outstanding work being done within the department and the research opportunities available. A big congratulations to Ali, Sarah, Samantha, and Nick on a job well done!!! We look forward to what's ahead in your professional development.

NEW ENGLAND AMERICAN COLLEGE OF SPORTS MEDICINE





UNIVERSITY OF NEW ENGLAND

Vision Training as a Tool to Improve Neck Reaction Time and Stiffness

Dresser A., Gallo C., Johnson J., Chappell J., Navin C., Chumer D., Rowley J.
Department of Exercise and Sport Performance
University of New England, Biddeford, ME
ACSM Conference, Denver, CO, 2023

ABSTRACT

Children continue to be challenged to develop strategies that will decrease the incidence of sports related concussions (SRC). Proposed to assess how reaction time training may improve neck muscle recruitment and stiffness, the purpose of this study was to determine if vision training could improve neck muscle recruitment and stiffness. The study was a randomized controlled trial. Participants were assigned to either a vision training group (VT) or a control group (CG). The VT group performed a 12-week vision training program. The CG group performed a control program. The primary outcome was neck muscle recruitment time. Secondary outcomes were neck muscle stiffness and reaction time. Results showed that the VT group had significantly faster neck muscle recruitment times compared to the CG group. There were no significant differences in neck muscle stiffness or reaction time between the two groups. These findings suggest that vision training may be a useful tool to improve neck muscle recruitment and stiffness in children.

METHODS

Forty subjects (20 M, 20 F) were recruited from a local youth sports organization. They were randomly assigned to either a vision training group (VT) or a control group (CG). The VT group performed a 12-week vision training program. The CG group performed a control program. The primary outcome was neck muscle recruitment time. Secondary outcomes were neck muscle stiffness and reaction time. Results showed that the VT group had significantly faster neck muscle recruitment times compared to the CG group. There were no significant differences in neck muscle stiffness or reaction time between the two groups. These findings suggest that vision training may be a useful tool to improve neck muscle recruitment and stiffness in children.

INTRODUCTION

Strategic neck muscle recruitment is essential for the brain to maintain balance and stability. Poor neck muscle recruitment can lead to increased risk of SRC. Vision training may improve neck muscle recruitment and stiffness, which could reduce the risk of SRC. This study aimed to determine if vision training could improve neck muscle recruitment and stiffness in children.

RESULTS

We observed significant differences in neck muscle recruitment time between the VT and CG groups. The VT group had significantly faster neck muscle recruitment times compared to the CG group. There were no significant differences in neck muscle stiffness or reaction time between the two groups. These findings suggest that vision training may be a useful tool to improve neck muscle recruitment and stiffness in children.

PURPOSE

The purpose of this investigation was to determine if 12-week vision training program will improve neck muscle recruitment time compared to a control group.

Figure 1: The neck muscle recruitment time for the VT group was significantly faster than the CG group.

CONCLUSION

The 12-week vision training program significantly improved neck muscle recruitment time compared to a control group. These findings suggest that vision training may be a useful tool to improve neck muscle recruitment and stiffness in children.

UNIVERSITY OF NEW ENGLAND

BONE MINERAL DENSITY IN WEIGHT BEARING AND NON-WEIGHT BEARING EXERCISE PAIRED WITH RESISTANCE TRAINING

Sarah Faithfull, Emma, Emily Mitchell, FACSM, Nicholas Campbell, D. Williams, Matthew Carlson, Brittany Norman, Connor Whitehead, Paul Vitek
University of New England, Biddeford, ME, Western Michigan University, Kalamazoo, MI
ACSM Annual Meeting & World Conference, Denver, CO, 2023

ABSTRACT

The purpose of this study was to determine if 12-week vision training program will improve neck muscle recruitment time compared to a control group. Results showed that the VT group had significantly faster neck muscle recruitment times compared to the CG group. There were no significant differences in neck muscle stiffness or reaction time between the two groups. These findings suggest that vision training may be a useful tool to improve neck muscle recruitment and stiffness in children.

RESULTS

We observed significant differences in neck muscle recruitment time between the VT and CG groups. The VT group had significantly faster neck muscle recruitment times compared to the CG group. There were no significant differences in neck muscle stiffness or reaction time between the two groups. These findings suggest that vision training may be a useful tool to improve neck muscle recruitment and stiffness in children.

INTRODUCTION

Strategic neck muscle recruitment is essential for the brain to maintain balance and stability. Poor neck muscle recruitment can lead to increased risk of SRC. Vision training may improve neck muscle recruitment and stiffness, which could reduce the risk of SRC. This study aimed to determine if vision training could improve neck muscle recruitment and stiffness in children.

RESULTS

We observed significant differences in neck muscle recruitment time between the VT and CG groups. The VT group had significantly faster neck muscle recruitment times compared to the CG group. There were no significant differences in neck muscle stiffness or reaction time between the two groups. These findings suggest that vision training may be a useful tool to improve neck muscle recruitment and stiffness in children.

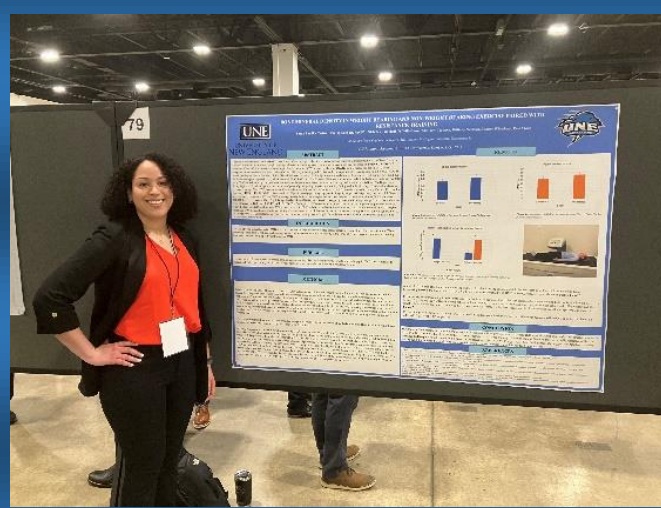
PURPOSE

The purpose of this investigation was to determine if 12-week vision training program will improve neck muscle recruitment time compared to a control group.

Figure 1: The neck muscle recruitment time for the VT group was significantly faster than the CG group.

CONCLUSION

The 12-week vision training program significantly improved neck muscle recruitment time compared to a control group. These findings suggest that vision training may be a useful tool to improve neck muscle recruitment and stiffness in children.



Thoracic Spine Manipulation Alleviates Hip Adduction Force Asymmetries Up to Forty Eight Hours



Samantha DeAngelis¹, Brian Swanson¹, Matthew Sharma¹, Jamie Raymond¹, Michael Lawrence¹
 1. Beshenok College of Health Professions, University of New England
 2. Department of Rehabilitation Sciences, University of Hartford
 3. Raymond Chiropractic



Abstract

Strength asymmetries between limbs can lead to tripping biomechanics and injury. A high velocity low amplitude theta (HVLT) is a technique used by manual therapists to influence muscular output in an effort to alleviate these imbalances. However, some HVLTs are utilized in the clinic without sufficient empirical evidence. **PURPOSE:** Determine if a thoracic spine HVLT improves unilateral hip adductor weakness both immediately and 48 hours post-manipulation. **METHODS:** 20 subjects (11 male and 9 female, aged 25.4 ± 2.3 years, mass 80.0 ± 19.1 kg, height 1.7 ± 0.1 m) with unilateral hip adductor weakness completed bilateral maximum voluntary isometric hip adduction testing, pre-, immediately post-, and 48 hours post thoracic spine HVLT. Mean and maximum hip adduction force was measured with a uniaxial sensor. Manual muscle testing determined unilateral hip adductor weakness and degenerated strong and weak limbs. A repeated measures analysis of variance was used to compare between limbs and across time, significance was set at $p < 0.05$. **RESULTS:** The strong limb produced more hip adduction force than the weak limb for both limbs (114.7 ± 43.3 N vs. 108.5 ± 42.2 N, $p = 0.018$) and maximum measured (125.4 ± 47.1 N vs. 119.0 ± 45.8 N, $p = 0.021$). The strong limb was not different across conditions. For the weak limb, mean force production was greater 48 hours post manipulation (120.2 ± 43.9 N) compared to both pre- (88.4 ± 40.6 N, $p = 0.019$) and immediately post-manipulation (108.8 ± 39.1 N, $p = 0.019$). **CONCLUSION:** Weak limb hip adduction force increased immediately post-HVLT, but strong limb force was unchanged. Limb symmetry increased from 88.0% at baseline to 95.4% immediately post-HVLT and 99.5% 48 hours post manipulation. Findings support HVLT thoracic manipulation to alleviate hip adductor strength asymmetries for up to 48 hours, which is important as hip adductors play an important role in limb stability and power generation during athletic pursuits.

Introduction

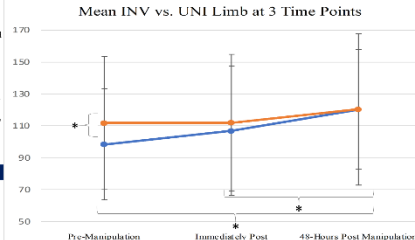
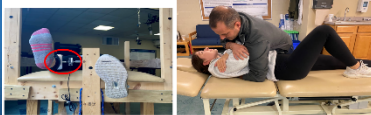
- Hip adduction plays an important role in stabilization and explosivity in walking and athletic activities.
- Previous research reveals an immediate increase in force production immediately following HVLT. Results were not sustained post 30 minutes¹.
- Increased tensor fasciae latae force by 18.5%, remained 48 hours later².
- Limb Symmetry Index is used to compare how equal limbs function with respect to each other. After ACL reconstruction, 90% ISI is considered adequate³.

Purpose

Determine if a thoracic spine HVLT improves unilateral hip adductor weakness both immediately and 48 hours post-manipulation.

Methods

- 20 subjects (11 male and 9 female, aged 25.4 ± 2.3 years, mass 80.0 ± 19.1 kg, height 1.7 ± 0.1 m) with predetermined unilateral hip adductor weakness and no hip flexor weakness participated in this study.
- Procedure:
 - Weak Limb Involved Limb (INV), Stronger Limb Uninvolved Limb (UNI)
 - Subjects completed bilateral maximum voluntary isometric hip adduction, pre-, immediately post-, and 48 hours after receiving a thoracic spine HVLT.
 - Force production was recorded with a uniaxial sensor and mean and maximal force production was calculated for each condition.
- Measures:
 - A repeated measures analysis of variance was used to compare between limbs and across conditions, significance was set at $p < 0.05$.

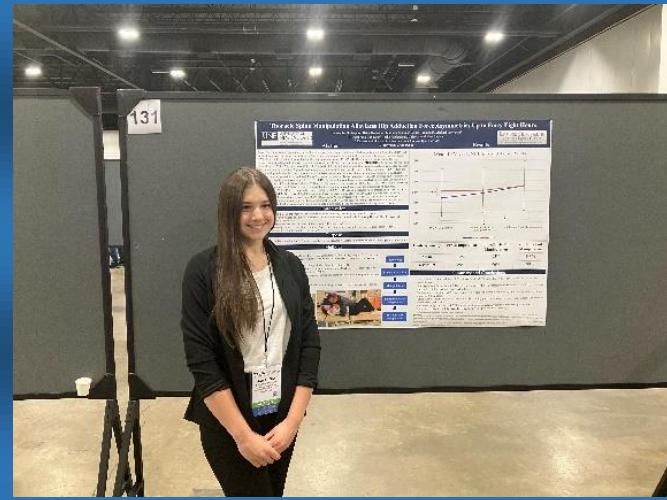


Limb Symmetry	Pre-Manipulation	Immediately Post Manipulation	48 Hours Post Manipulation
Mean	88%	95%	100%
Maximum	89%	96%	99%

Summary and Conclusions

- Limb symmetry increased from 88.0% at baseline to 95.4% immediately post-HVLT and 99.5% 48 hours post manipulation.
- Limb symmetry began below 90%, 48-hours post HVLT asymmetries were almost completely eliminated with limbs resulting within 1% of each other.
- Findings suggest that a HVLT may improve hip adductor strength immediately post manipulation and further improve 48-hours later.
- Future studies should consider a neuromuscular training program to observe how it may affect the return of asymmetries post-HVLT.
- Practitioners may consider HVLT for treatment of neuromuscular asymmetries between hip adductors.
- Further data collection will be needed in order to fully interpret results of the study.

Keywords: strength, asymmetry, HVLT, hip adduction, force production, limb symmetry, unilateral weakness, thoracic spine manipulation, limb stability, power generation, athletic pursuits.



Physiological and Subjective Changes While Wearing a Facemask When Performing Exercise at Different Intensities

Nick Campbell¹, Michele Labatz¹, Paul Visich¹
 Department of Applied Exercise Science, University of New England
 Providence Sports Medicine, South Portland, ME; Diet, Pediatrics, Ortho, School of Medicine



ABSTRACT

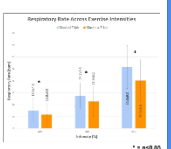
PURPOSE: To investigate how the use of surgical masks while exercising at different intensities affects physiological and subjective measures. **METHODS:** Each subject completed two 45-minute exercise trials (1800 minutes at 40%, 60%, and 80% of their VO₂ max) with and without a surgical mask. Heart rate (HR), oxygen saturation (SpO₂), respiratory rate (RR), ratings of perceived exertion (RPE), and dyspnea (Dys) were measured at each intensity. Repeated ANOVA was used using SPSS (Version 27) and significance was set at $p < 0.05$. **RESULTS:** Study subjects (age: 20.4 ± 1.2 years; VO₂ peak: 40.12 ± 11.05 ml/kg/min, 57% female) completed the study. When comparing masked and unmasked trials at each exercise intensity, differences were found only in RR (RR 40%: 17.6 ± 4.9 vs. 15.8 ± 4.9, $p < 0.02$); $p < 0.001$; 23.3 ± 6.5 vs. 21.3 ± 6.2, $p < 0.01$; $p < 0.04$, 80%: 30.1 ± 8.8, $p < 0.01$; $p < 0.06$). When comparing masked to unmasked trials across all intensities, a difference was found in Dys (3.5 ± 2.4 vs. 2.9 ± 2.2, $p < 0.01$; $p < 0.3$).

RESULTS

Statistical analysis: Statistical analysis consisted of comparing the difference in masked versus unmasked trials at each exercise intensity with the variables of interest (HR, SpO₂, RR, RPE and Dys). A IRMANOVA and Bonferroni post-hoc for multiple comparisons was used on SPSS (Version 27), and $p < 0.05$ was used to determine significance.

Table 1. Effect of facemask use on objective and subjective measures during maximal progressive cycling exercise (mean ± standard deviation).

Variable	Masked	Unmasked	p-value
HR (b/min)	158 ± 12	158 ± 12	0.98
SpO ₂ (%)	98.5 ± 0.5	98.5 ± 0.5	0.98
RR (breaths/min)	17.6 ± 4.9	15.8 ± 4.9	0.02
RPE (0-10)	23.3 ± 6.5	21.3 ± 6.2	0.01
Dys (0-10)	3.5 ± 2.4	2.9 ± 2.2	0.01



INTRODUCTION

Facemasks have been observed to reduce the spread of respiratory diseases. Physical exertion increases the distance traveled by expelled particles, contributing to heavy "super-spreader" events throughout the COVID-19 pandemic that were reported with unmasked exercise in indoor facilities¹. Therefore, masking while exercising is recommended to help prevent the transmission of disease². However, there is limited literature assessing the physiological and subjective effects of masking during exercise.

PURPOSE

The purpose of this study was to assess how the use of surgical masks while exercising at different intensities affects physiological and subjective parameters.

METHODS

Following UNE IRB approval (#072023-11), subject informed consent and COVID-19 guidelines, the subjects completed the following:

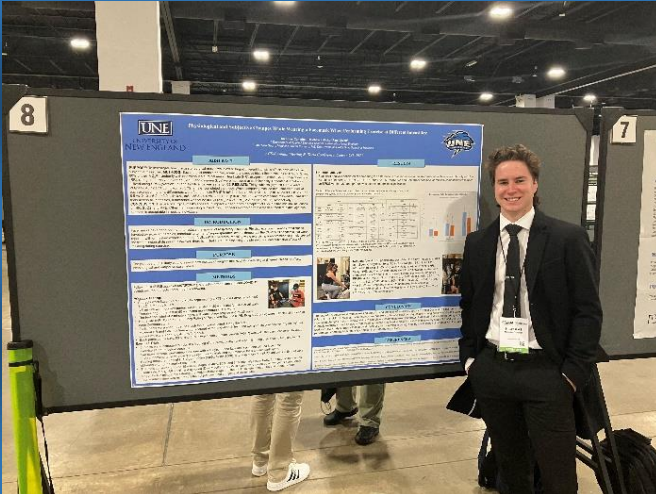
- VO₂ Peak Testing:**
 - Subjects were fitted to a Maxair lite ergometer (0.7771) and a Pinnacore 2400 TrueOne metabolic cart.
 - A 5-minute warm-up was performed with males at 50 watts and females at 25 watts.
 - Females began the test at 50 watts and males began at 100 watts.
 - The test consisted of 2-minute stages, with each stage progressing by 20 watts.
 - Heart rate (HR), Pulse rate, and Borg Rating of Perceived Exertion (RPE; Borg-20 scale) were collected at the end of each 2-minute stage.
 - Participants were encouraged to reach their maximal effort during the test.
 - Maximal HR and final test time were recorded at the end of each test. The two greatest consecutive VO₂ (ml/kg/min) values were averaged to calculate VO₂ peak.
 - Each participant's 40%, 60%, and 80% oxygen consumption reserve (VO₂R) was calculated and converted to watts.
- Exercise Trials:**
 - Subjects were instructed to submit a food log of the previous day (and repeat during their second trial) and to not exercise 24 hours before each trial.
 - Two exercise tests were completed, one with a surgical-grade face mask and one with no face mask.
 - A randomized table was used to assign masked trials and non-masked trials to each participant.
 - Rating measurements of HR, O₂ saturation (SpO₂; Nonin 8500), and respiratory rate (RR; Cardiores E-Scope) were obtained prior to the start of each trial.
 - The trials consisted of three 15-minute stages at 40%, 60%, and 80% intensity respectively, for a total of 45 minutes.
 - Heart rate (HR), SpO₂, RR, RPE, and dyspnea (Dys) Modified Borg-10 scale were collected at two points during each stage: the 8.75 minute mark during the middle of the stage and the 14.75 minute mark at the end of each stage.
 - Total exercise time was recorded if the subject could not complete all 45 minutes.

CONCLUSION

The use of a surgical mask with increasing duration and intensity of exercise appears to affect Dys and RR, but has no influence on HR, SpO₂, or RPE. However, these findings are not likely to be of clinical consequence in young healthy adults and did not produce significant change in our subjects' ability to complete a demanding exercise protocol. Although individuals performing high intensity exercise appear to be aware that wearing a mask may lead to small increases in respiratory strain (RR and Dys) at a similar workload, our study suggests that surgical mask use with exercise in young, healthy adults does not interfere with their ability to perform and complete high intensity conditioning/performance activity.

REFERENCES

1. Miller MA, Gohil D, et al. A social and behavioral network-based model of COVID-19 transmission during indoor exercise. *PLoS One* 2021; 16(10):e0248000.
2. De Lencastre J, et al. SARS-CoV-2 Transmission Associated with Exercise in Gyms. *Clinics* 2021; 76(11):2021-2024.
3. De Lencastre J, et al. SARS-CoV-2 Transmission Associated with Exercise in Gyms. *Clinics* 2021; 76(11):2021-2024.



Nick Campbell (above) had a manuscript accepted May of 2023 in the *Translational Journal of the American College of Sports Medicine*. Nick played a pivotal role in data collection and writing the manuscript, entitled **"Physiological and Subjective Changes While Wearing a Facemask When Performing Exercise at Different Intensities."** His research showed that while wearing a surgical face mask at both moderate and vigorous exercise, one's respiratory rate was greater, but no differences were observed in heart rate, oxygen saturation or rating of perceived exertion. Bottom line, people breath more often when wearing a face mask, at both moderate and vigorous exercise but otherwise no other major changes. Overall, it appears to be safe to wear a face mask while exercising at both moderate and vigorous exercise in healthy individuals. Nick also presented his research at New England ACSM meeting in Providence, RI in October of 2022 as an oral presentation and the National ACSM meeting in May of 2023 as a poster presentation. Other authors included Dr. Michele Labatz and Dr. Paul Visich.

Jon Chappel, Lindsay Rand Smith, and Kyle Poulin represented UNE Applied Exercise Science at the New England College of Sports Medicine's College Bowl in Providence, RI this past October. For the second year in a row, UNE brought home Gold, defeating all other teams in final jeopardy, thanks to their knowledge of NADH+. Their victory won them a spot at the ACSM National Conference in Denver, Colorado, to compete against the top teams in the country. We are proud to say that our team did what no other New England Chapter team has done, ever - they won the National ACSM College Bowl! Going into Final Jeopardy they stood in second place, and yet again, were the only team in the competition to answer Final Jeopardy correctly, thanks to Hypertrophic Cardiomyopathy. Congratulations Jon, Lindsay, and Kyle. We are so proud of you!

NEW ENGLAND CHAMPIONS!!!



NATIONAL CHAMPIONS!!!





Two students and one faculty member from the University of New England's Master of Science in Athletic Training (M.S.A.T.) program recently joined 1,700 other health care professionals in volunteering to provide medical care to runners at the 127th Boston Marathon, held Monday, April 15.

M.S.A.T. Class of 2024 students Aiden O'Keefe and Riley Billings joined Christopher Rizzo, D.A.T., clinical professor and coordinator of Clinical Education within the Department of Exercise and Sport Performance, in providing medical care to over 1,600 runners during the race. Nearly 30,000 runners from more than 100 countries participated in the famed event.

Rizzo explained that volunteering at the marathon provided a rich experience in interprofessional practice as various health professionals — including athletic trainers, physicians, physician assistants, nurses, occupational and physical therapists, and clinical psychologists — were divided into teams to care for injured and distressed runners.

Second-year MSAT students return to campus for 2023 graduation

In late May, MSAT II students returned to campus following their immersive experiences in order to participate in two culminating events. The first was held in the Innovation Simulation and Interprofessional Center (ISIC) on the Westbrook College of Health Professions. Students participated in simulation activities around acute injury. Simulations provided students with an opportunity to respond to conditions such as anaphylactic shock, pneumothorax and cardiac arrest. Each session concluded with a debriefing activity where students were able to discuss their experiences with their peers.

As a component of the Athletic Training Capstone Experience, students identified unique clinical cases from their immersive experiences. Once these were approved, students worked with Drs Rizzo and Visich to create clinical case posters. As the final step in the capstone experience, MSAT II students presented the clinical cases to a group of faculty and students.



Athletic Training Students and Faculty at EATA Annual Meeting

Athletic Training faculty members, Wayne Lamarre, Chris Rizzo and Kristen Bailey, along with twelve athletic training students attended the Eastern Athletic Trainers' Association Annual Meeting in Boston in January. MSAT student Michelle Barr was the Maine EATA Student Delegate Representative and helped to plan the student session. Wayne gave a presentation as part of the student session on his experience with the USA Women's National Ice Hockey Team at the 2022 Winter Olympics in Beijing.



EATA Quiz Bowl and Representation on NATA Quiz Bowl

Michelle Barr participated in the District 1 quiz bowl, placing second among all students from New England. She will be part of the three-member team to represent District 1 at the NATA Quiz Bowl in Indianapolis in late June. Good luck Michelle!



COACHING MINOR

Another busy year teaching and coordinating the Coaching minor. Internship opportunities have returned to 'normal' after the disruption due to the pandemic. We had 15 students graduate with the minor in May 2023. Two students were part of the coaching staff winning state championships in Girls Ice Hockey and Wrestling. Four students have been asked to return as assistant coaches at local high schools, and another two students received the Outstanding Future Professional award presented at the Maine Health, Physical Education, Recreation and Dance conference (MAHPERD), more details under AES updates.



Rising juniors Emily Factor and Elizabeth Goodrich compete against one another during their Coaching internships Biddeford HS versus Cheverus HS (State Champions).



Heath Pierce was an invited presenter at the Maine Association of Health, Physical Education, Recreation and Dance (MAHPERD) on November 7, 2022, Samoset Resort, Rockport, ME, presentation titled: The Plyometric Conditioning Continuum - If You Jump, You Need to Land!

Dr. Chris Rizzo, Professor Pierce with AES and AT students staffed an physical performance booth at the Inaugural Maine Mariners Youth Education Event.



Dr. Shireen Rahman was awarded the WCHP Distinguished Teaching Award 2023 at the WCHP Baccalaureate Ceremony on May 19, 2023

Professor Kristin Bailey was inducted into the Maine Athletic Trainers' Association Hall of Fame.



Publications (*denotes AES undergraduate students)

Croteau K, Eduljee N, Murphy L, **Rosene J**, Munoz M. Impact of the COVID-19 pandemic on athletes participating in the 2022 Masters Field Hockey World Cup. *International Journal of Sport, Exercise and Health Research*. 2023 (Accepted).

Campbell N, LaBotz M, **Visich P**. Physiological and Subjective Changes While Wearing a Facemask When Performing Exercise at Different Intensities. *Translational Journal of the American College of Sports Medicine*. 2003 (Accepted).

Presentations (*denotes AES undergraduate students)

- Jun, 2023 *Dresser A, *Gallo C, *Tolzman J, *Chapel J, *Nevin C, *Clymer D, **Rosene J**. Vision training as a tool to improve neck reaction time and stiffness. American College of Sports Medicine Annual Meeting. Denver, CO.
- Jun, 2023 *Familia Castro S, Michael T, *Campbell N, *Wilhelmson T, *Cardona M, *Norman B, *Whitehead C, **Visich P**. Bone mineral density in weight bearing and non-weight bearing exercise paired with resistance training. American College of Sports Medicine Annual Meeting. Denver, CO.
- Jun, 2023 *Campbell N, LaBotz M, **Visich P**. Physiological and Subjective Changes While Wearing a Facemask When Performing Exercise at Different Intensities. American College of Sports Medicine Annual Meeting. Denver, CO.
- Jun, 2023 *DeAngelo S, Swanson B, Somma M, Raymond J, Lawrence M. Thoracic Spine Manipulation Alleviates Hip Adduction Force Asymmetries Up to Forty-Eight Hours. American College of Sports Medicine Annual Meeting. Denver, CO.
- Oct, 2022 *Dresser A, *Gallo C, *Tolzman J, *Chapel J, *Nevin C, *Clymer D, **Rosene J**. Vision training as a tool to improve neck reaction time and stiffness. New England American College of Sports Medicine Fall Meeting. Providence, RI.
- Oct, 2022 *Familia Castro S, Michael T, *Campbell N, *Wilhelmson T, *Cardona M, *Norman B, *Whitehead C, **Visich P**. Bone mineral density in weight bearing and non-weight bearing exercise paired with resistance training. New England American College of Sports Medicine. Providence, RI.
- Oct, 2022 *Campbell N, LaBotz M, **Visich P**. Physiological and Subjective Changes While Wearing a Facemask When Performing Exercise at Different Intensities. New England American College of Sports Medicine. Providence, RI.
- Oct, 2022 *DeAngelo S, Swanson B, Somma M, Raymond J, Lawrence M. Thoracic Spine Manipulation Alleviates Hip Adduction Force Asymmetries Up to Forty-Eight Hours. American College of Sports Medicine Annual Meeting. Denver, CO.
- Jun, 2022 Tice C, *Gallo C, Zhao H, Langford D, **Rosene J**. Head impacts and brain-derived blood biomarkers differ between male and female collegiate ice hockey players. National Neurotrauma Society Symposium. Atlanta, GA.
- May 2022 Croteau, K., Eduljee, N., Murphy, L., & **Rosene, J**. Injuries in masters field hockey players competing in the 2018 World Cup: Comparisons of rate, location, and type by age, sex, and field hockey experience. American College of Sports Medicine Annual Meeting. San Diego, CA.

EVENTS

Department Fall and Winter Alumni Events

Each fall and winter the department hosts alumni events. During the fall we can be found tailgating during the homecoming football game. We invite all current students and alumni to put homecoming on your calendar and join us at the tailgate. We are always interested in what our alumni are doing and look forward to your continued involvement with the department.

During the winter we host a “hockey tailgate” at one of the UNE ice hockey games. This is an opportunity for alumni and current students to interact, network, and share experiences. Please keep an eye out for the announcement of the date of the 2024 ice hockey tailgate. Food, drink, and raffles are part of this fun evening. We look forward to seeing all current students and alumni.

For any questions about the upcoming alumni events, please reach out to Mim Powelson, administrative assistant for the department at mpowelson@une.edu.

Exercise and Sport Performance Senior Day Celebration

A new tradition within the department is to have a senior celebration during senior week. We have included senior gifts, a flashback video and corn hole tournament. For the seniors graduating in 2024, start practicing and preparing now for your entry into the corn hole tournament.



FACULTY MESSAGES

From Kristin. I was promoted to Clinical Professor and completed my second year as the NCAA Faculty Athletics Representative. In November, I was selected for and attended the NCAA Division III FAR Fellows Institute. In May, I was honored by the Maine Athletic Trainers' Association and inducted into the MATA Hall of Fame.

From Shireen. I was given the opportunity to teach DPT gross anatomy and am enjoying working with many AES students at the graduate level. I continue to teach gross also in the PA program — so it is gross, gross, gross year-round!!! I miss all of you in the hallways and in the lab!! I am now also serving as the interim program director for Nutrition. So, I am keeping myself busy. Looking forward to Casey's wedding— another, longer stay in Baxter State park, and a hopeful Buffalo Bill season- yet the multiple night games are throwing my driving schedule off!!! Hope all is well with everyone out there— be in touch- always love your life updates!!!! You are all killing it!!!! Go Bills!

CONGRATULATIONS TO THE DEPARTMENT OF EXERCISE AND SPORT PERFORMANCE CLASS OF 2023

APPLIED EXERCISE SCIENCE

Anderson, Hannah
Bagnoli,
Beauvais, Zachary
Beyor, Kaylee
Burke, Mackenzie
Chabre, Chris
Chappel, Jonathan
Coiley, Cassidy
Crehan, Maeve
DeAngelo, Samantha
Demattio, Coryne
Dresser, Alison
Familia Castro, Sarah

Harkins, Matthew
Abigail Healy, Brandon
Hixon, Maya
Hoag, Evan
Krenzer, Katrina
Lamontagne, Chase
Maheux, Jaymeson
McCarthy, Sean
Merrell, Chad
Michaud, William
Needham, Casey
O'Toole, Maddison
Peters, William

Poulin, Kyle
Prentiss, Robert
Severance, Kaitlyn
Snowden, Trey
Swanson, Eleanor
Tavares, Ashlyn
Thornton, Adam
van der Merwe, Nicholas
West, Parker
Wheeler, Gregg
Whitcomb, Kati
Wirth, Tristan

ATHLETIC TRAINING HEALTH SCIENCE

Billings, Riley
Boutin, Victoria
Chapman, Ann
Vienneau, Ryan

Dispoto, Ethan
Hutchins, Nathaniel
Matot, Trevor
Waterman, Brenden

Mitchell, Olivia
O'Keefe, Aidan
Tanis, Gavin

ATHLETIC TRAINING MS

Alyssa W. Ehrenfried
Jordan Kaylee Strum
Michelle Christine Barr

Benjamin K Lui
Kathryn Julia Wilmot
Shane Patrick Alercio

Elizabeth Jane Scheurich
Michaela Ann Davis

ONWARD BUT ALWAYS HOME