UNIVERSITY RECREATION AND WELLNESS

Avoiding Overuse Injuries

During and Post Quarantine

June 2020

Alysia Henderson, MS, LAT, ATC
Get in touch with RecWell Athletic Training

At this very moment, some of us may live in a state where gyms have reopened, and the excitement of getting back to our normal workout and lift routines is uncontainable. For others, we continue to push forward and work out in our make-shift home gyms. While one of these realities may appear more ideal than the other, there is one looming cloud hovering over both - the potential for developing an overuse injury.

Overuse injuries are defined as injuries that occur as a result of repetitive trauma through movement and exercise and often reveal themselves in the form of tendinitis, bursitis, medial tibial stress syndrome (shin splints), and bone stress reactions or fractures (7). One may develop an overuse injury by not including variety in their workout routine, committing training errors, and overtraining (non-rest). To combat overuse injuries incorporate the suggestions below.

Cross Train

While under"stay at home" orders, some of us may have found ourselves doing the same exercise routines or running the same paths and routes day after day, not realizing that we could be contributing to our own pain or injury. This continued or regimented pattern of running, lifting, etc. places orthopedic stresses through the same muscles and joints, causing wear and tear. In being mindful of this risk to ourselves, cross training is a useful workout component as it incorporates several modes of training or activities across consecutive exercise sessions and muscle groups (4).

As part of the RecWell community, you have access to an array of group fitness videos and instruction to help break up the monotony of your workout routine. Classes are available for all abilities and intensity needs. Are you looking to add a recovery day into your workout plan? Take a Yin yoga class! Are you interested in getting your cardio in for the day? DanceFit or a bootcamp video can fulfill that need. Other classes include functional circuit training, barre, low impact circuit training, and high intensity interval training (HIIT). Visit RecWell Fitness to get started!

Practice "Within Activity Cross Training"

There are some individuals whose repetitive workout practices are for a reason other than general physical fitness. Running is a stressful and high impact activity, but there are avid runners who may be working towards a personal best or future race. Others may practice a certain exercise or movement consistently because they are working to develop or improve a skill necessary to perform well in a sport. For individuals noted above, "within-activity cross training" is an option that limits risk of injury without negatively impacting the gains they have made toward their goal. For runners, within-activity cross training suggestions include reducing the pace or speed of the run to lower the impact to the lower body, varying distance and times of runs, running with a partner, and rotating running shoes daily (2, 3). Water running is also great for lowering impact to the body, so for those of you who have private home, or non-community pools, this is a great option you are afforded during this time. These same recommendations can be applied to other sports or movements such as swimming different strokes, varying a pitch count in baseball or softball, or moving a workout from out on the water to an indoor rower.

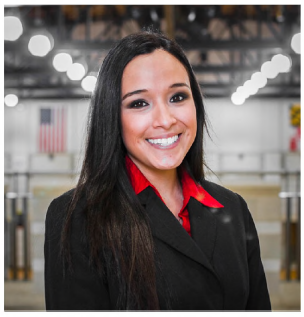
Allow time for Rest and Gains

Without adequate breaks and rest days, the body is unable to rehydrate, restore its fuel sources, reap the maximum gains from previous workout sessions, and improve performance in future sessions (1). When one does not rest, they may overtrain by working out with excessive frequency, volume, or intensity too quickly, causing the body inefficient time to heal and recover (5). Generally speaking, you should factor in at least one day of rest when mapping out your weekly workout sessions and try to avoid more than 72 hours of rest between days that stress the same muscle group (6,1). It is normal to feel soreness following exercise, but the key is to not overload the body too quickly. Including the above suggestions in your workout plans will help you avoid overuse injuries so you can keep achieving your fitness goals.

Many of us have had to get creative with our weight or cardio equipment resources during quarantine, so please keep in mind that your body may have become slightly de-conditioned as a result. A very generalized rule of progression is increasing the demands of exercise (frequency, intensity, or duration) by no more than 10% each week for aerobic endurance training and 10% at a time for resistance training (1,6).

Conclusion

With proper reflection and planning of your workout sessions, you can decrease the likelihood of sustaining an overuse injury. Utilize all of the fitness resources and workouts RecWell offers and contact your medical provider when necessary or for guidance when starting a new workout prescription. Don't hesitate to reach out to the athletic trainers Alysia and Thomas with any injury questions via "Ask a Trainer!"



Alysia Henderson, MS, LAT, ATC
RecWell Head Athletic Trainer

Alysia became RecWell's head athletic trainer with the program's inception in the Fall of 2018. To contact her with your injury questions or get in touch with any of the other athletic training staff please visit RecWell Athletic Training

Sources

1. Baechle, T. R., Earle, R. W. (2008). Essentials of strength training and conditioning (3rd ed). Human Kinetics.

2. Dufek, J.S. (2002). Exercise variability: a prescription for overuse injury prevention. ACSM's Health and Fitness Journal, 6. (4), 18-23. https://journals.lww.com/acsm-healthfitness/Abstract/2002/06040/Exercise_Variability__A_Prescription_for_Overuse.7.aspx

3. Hreljac, A. (2005). Etiology, prevention, and early intervention of overuse injuries in runners : a biomechanical perspective. Physical Medicine and Rehabilitation Clinics of North America, 16., 651-667. http://citeseerx.ist.psu.edu/viewdoc/download?doi=10.1.1.465.3466&rep=rep1&type=pdf

4. Matthews, J. (2009, September, 2). What is cross training and why is it important. American Council on Exercise. https://www.acefitness.org/education-and-resources/lifestyle/blog/36/what-is-cross-training-and-why-is-it-important/

5. O'Connor, F. G., Howard, T.M., Fieseler, C.M., Nirschl, R.P. (1997) . Managing overuse injuries: a systematic approach. The Physician and Sports Medicine, 25. (5), 1-7. https://pdfs.semanticscholar.org/740c/9525163cd1708f859b33bb67e1b7aad38c84.pdf

6. Roy, B.A. (2015). Overreaching /overtraining: more is not always better. ACSM's Health and Fitness Journal, 19. (2), 4-5. DOI 10.1249/FIT.0000000000000100

7. Yang, J., Tibbetts, A. S., Covassin, T., Cheng, G., Nayar, S., Heiden, E. (2012). Epidemiology of overuse and acute injuries among competitive collegiate athletes. Journal of Athletic Training, 47. (2), 198-204. https://www.natajournals.org/doi/pdf/10.4085/1062-6050-47.2.198t