R.I.C.E

What | Why | How



OUR DISCUSSION

TAKING CARE OF YOUR
INJURY

WHAT IS THE R.I.C.E METHOD?

WHY DO WE USE IT?

METHODS AND MODES
OF APPLICATION

Taking Care of your Injury

by Thomas L. Bennett LAT/ATC

Have you ever felt a consistent dull, aching feeling the day after a workout? Have you ever rolled your ankle or banged your knee on the pavement? Of course, you have, we all have. Well, what happens afterward, what do you do for the aches, pains, swelling, and bruising? Simple, use the R.I.C.E. method! So, what does RICE stand for, what does it mean, and how does one apply this method to an injury? This UMD RecWell Athletic Training article is going to cover everything involved with participating in the R.I.C.E method. From, materials to timelines this article is going to cover it all! Let's get started.

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What is the R.I.C.E Method?

Rice stands for Rest, Ice, Compression, and Elevation. Simple right, so let's break that down. Rest is most certainly obvious, it means to try your best not to use the affected area for a short period of time. Ice is just as easy to define, it is the first material one needs to apply to the injured area. Compression means to flatten or squeeze together, usually, this implies lightly squeezing the swollen or injured area. Finally, elevation means to raise the injured area above the heart. The RICE method is used to manage the inflammatory cycle that begins when we injure an area of the body (specifically joints or soft tissues) (5) We need to be able to do things like manage pain, and balance fluid pressures in the body all while trying to promote healing and recovery, the RICE method is one of the oldest and simplest ways to start on your own.

Why Do We Use It?

So, why do we do these things on a sore area, injured joint, or muscle? What is it that happens when we utilize the R.I.C.E method? The most common reason to utilize the R.I.C.E method is to give your tissues and cells time to recover from micro tears and heal during tissue strain. Sometimes we do not want to expedite the recovery time of injuries as we are uncertain of the extent of an injury (3). This is especially true when you are on your own and can't reach a health care professional expeditiously. Knowing about this method and how to utilize it will at least help you manage the early stages of healing without putting yourself at further risk. Think about it, better safe than sorry. But what do each of these suggestions do for an injury?

Micro Tears

Tearing of tissue under stress or strain

Occur during general physical activities like running, weight training, and playing sports

Tissue Strains

Tissue can no longer tolerate the ability to sustain both stress and strain bringing about tissue break down

Ankle Sprains, Hamstring
Strains

Rest (and equal parts protection) allows our tissues time to heal without exposing them to similar environments and actions/scenarios that would irritate or restart the process of inflammation and therefore extend the amount of time it takes to heal. Next up is ice. Ice is essentially used to mitigate pain by slowing the nerve conduction velocity (1) which controls the pain we receive during an injury. On to compression. When we compress an injured area, especially one that is swollen, we are attempting to help manage various extracellular fluids produced during inflammation both into and out of the injured area by balancing hydrostatic pressure and promoting venous and lymphatic flows (2). Finally, we have elevation. We elevate injured areas above our heart (as best possible) to manage swelling via gravity to balance pressure in the damaged tissues. Simply put, elevation lowers hydrostatic pressure thereby allowing a balanced pressure to be reached more quickly (3) so the body can begin to promote healing somewhat sooner.

How Do We Use this method?

Okay, let's move on to some methods and modes of application that would be available to you. Now, while you as a student have access to the UMD RecWell Athletic Trainers, we wanted to be sure that you had some knowledge and applicable information to get started on your own. Below you will see a list citing examples of icing applications, compression materials/products, and elevation arrangements.

We must not forget to answer the question: 'How long do I apply this method?' The answer is threefold. One, utilize the R.I.C.E Method daily or every other day. Two, be sure to have a timer, stopwatch, or alarm on your phone and set it for about 15-20 minutes. Three, depending on the amount of pain and swelling one is in, perform this method about 2-3 times a day. The whole process takes about 2-3days to notice a difference. Following this 3 day period, as you begin to feel better or have seen a health care provider you can begin to use the joint/injured area for daily activities. How do you know you can do this? Well, the most accepted suggestion is to use pain as your guide. If there is too much pain or any uncertainty, then do not try to use the injured area as you normally would until you see a healthcare professional or begin to feel better. Here at the UMD RecWell Athletic Training Program we strongly advise that if pain and swelling have not resolved in about 1 week (5-7 days) that you report to a health care provider for further evaluation. There may be more specific evaluation and treatment needed for the injured area.



TIMELINES

Rest: 24 - 48 hrs
as much as possible
lce: 24 - 72 hrs | 2-3/day
15-20 mins sessions
Compression: 24-72 hrs
as much as possible
Elevation: 24-72 hrs
as much as possible
15-20min sessions

MODES OF APPLICATION

Ice: Bags, Bucket, Tub

Compression: Ace Wrap,
Tubular Bandages,
Compression Sleeves

Elevation: The injured
area above the heart, 45°,
90°, 120° angles with
support



Conclusion

The R.I.C.E Method, in the context of the active individual who may or may not have the ability to readily and expediently see a health care provider, is a tried-and-true method to manage both acute and chronic injuries for a small window of time. It is simple to remember and easy to utilize in numerous situations. Don't forget that you have access to healthcare professionals here on campus that can help you if you so choose. As always we are here to assist and provide any additional guidance as needed.





References

Algafly, A. A., & George, K. P. (2007). The effect of cryotherapy on nerve conduction velocity, pain threshold and pain tolerance. British Journal of Sports Medicine, 365–369.

Denegar PhD ATC PT, C. R., Saliba PhD ATC PT, E., & Saliba PhD ATC PT, S. (2010). Therapeutic Modalities for Musculoskeletal Injuries (3 ed.). (D. H. Perrin PhD ATC, Ed.) Champaign, IL, United States of America: Human Kinetics.

Jarvinen MD PhD, T. A., Jarvinen, T. L., Kaariainen, M., Aarimaa, V., Vaittinen, S., Kalimo, H., & Jarvinen, M. (2007). Muscle injuries: optimising recovery. Best Practice & Researching Clinical Rheumatology, 317–331.

O'Connor PT ATC, D. P. (2001). Clinical Pathology for Athletic Trainers Recognizing Systemic Disease. Thorofare, NJ, United States of America: SLACK Incorporated.

Prentice PhD PT ATC, W.E. (2011). Principles of Athletic Training A Competency-Based Approach (14th e.). New York, NY, United States of America: McGraw Hill Companies Inc.

Prentice PhD PT ATC, W. E. (2011). Rehabilitation Techniques for Sports Medicine and Athletic Training (5 ed.). New York, NY, United States of America: McGraw Hill Companies Inc.

Villeco OTR/L CHT MLDC, J. P. (2012). Edema: A silent but Important Factor. Journal of Hand Therapy, 153-162.