The Effect of Kinesiotape on Shoulder Pain

1. In this research, there will be about 40 volunteers: 20 healthy subjects and 20 subjects with shoulder pain will be recruited from the Central Texas/San Marcos area. The inclusion criteria are: subjects must be between the ages 18 to 30. The inclusion criterion for a shoulder injury includes: subjects with shoulder pain during physical activities at least 2 weeks, one positive special test for pain to confirm a shoulder injury. Subject will be excluded from a study if he/she has surgery within the past two years. This investigation is targeting both healthy and unhealthy individuals with shoulder injury and the effects of Kinesiotape (a thin elastic tape) on pain reduction. Kinesiotape is a well recognized form of athletic tape approved by the FDA to assist in enhancing joint range of motion. To determine past injuries, a medical history form will be completed with an informed consent form.
2. Subject recruitment will take place on a volunteer based. The investigator will post a flyer of volunteer recruitment on the campus of Texas State University, San Marcos. The investigator will also make appointment with professors at Department of Health, Physical Education, and Recreation and Department of Physical Therapy and ask permission for volunteer recruitment in their classes. The investigator will contact owners of local rehabilitation and medical clinics to find if they would be interested in recruiting subjects for this study. The investigator will explain them the purpose of this procedures, and answer any questions regarding of this research project. Each subject will read the consent form and agree to participation prior to the project with written signature.
3. The procedure for this study will be as follows: Four 3-D accelerometer sensors will be attached to subjects behind the neck, elbow, and wrist in the dominant arm to measure shoulder angle. The subject will stand up straight, and their dominant shoulder will be covered by curtain to minimize visual stimulus. The subject’s ears will be covered by headphone to minimize auditory stimulus. First, the subject’s arm will passively abducted 120° by the investigator. After the arm is returned the side of the body, the subject will be told to reproduce the 120° angle. Secondly, the subject’s arm will be raised 90° from the body while the elbow is bended 90° (neutral position) passively by the investigator. The investigator will rotate the subject’s shoulder in 30° inward and 30° outward. Then, the subject will be told to recreate the normal three joint movements again by themselves. The investigator will apply two pieces of Kinesiotape® on the subject’s shoulder, and the subject will perform all previously described movements of shoulders. The subjects will rate shoulder pain during movement on a scale of 1 through 10. The investigator will record all joint angles with Kinesiotape® application and without application. All the data will be analyzed by Microsoft Excel® software.
4. The subjects with previous shoulder pain will be evaluated for shoulder impingement syndrome, which will lead to exclusion from this investigation. Thus, eliminating any chance of subject’s injury as the result of evaluation within this investigation. The subjects may feel discomfort during tape removal. Mild skin irritation may be experienced after tape removal on sensitive skin areas.
5. The primary investigator, nationally certified athletic trainer, will evaluate each participate for source of shoulder pain and identify the individuals with high risk of further injuries. Subjects with high risk will not be tested in this study. To minimize discomfort from tape removal, the investigator is trained in removal of the tape with slow and controlled movement. If a subject experiences skin irritation after tape removal, he/she will be referred to the Student Health Center.
6. The potential benefits gained by the subjects will lead to enhance understanding of Kinesiotapes effect on joint sense and pain reduction. Additionally, the result of this proposed study may benefit rehabilitators in providing information on Kinesiotapes potential benefits in treating shoulder pain.
7. Extra credit (up to two points) may be offered to students enrolled in classes in the Department of Health, Physical Education, and Recreation. There will be no other compensation offered or provided to the participants for this study.
8. It is very clear that there are more benefits than potential risk to the subjects. Precaution will be taken to decrease potential risks such as discomfort after tape removal and skin irritation at tape application site.
9. The testing site is the Athletic Training Lab in the Jowers Center at Texas State University. There are no current agencies associated with this investigation.
10. Athletic training involves recognition, treatment and rehabilitation of athletic injuries. This research problem relates to my academic program, athletic training, by investigating the effect a rehabilitative tool in improving patient treatment and rehabilitation. The result of this investigation will hopefully provide information to subjects and fellow clinicians regarding Kinesiotape effectiveness on individuals with shoulder pain. My supervising faculty member is Dr. Jack Ransone, a professor at Texas State University.
11. This proposed study has not been reviewed by another IRB.
12. Future researchers and the committee will have access to the results of study.