



UNIVERSITETET I BERGEN

Institutt for global helse og samfunnsmedisin
Faggruppen for masterstudier i fysioterapi

BIOMEKANIKK - MANT307

Emneplan finners på : <http://www.uib.no/emne/MANT307>

OPPDATERT LISTE KULL 9:

Anbefalt

Adams M, Bogduk N, Burton K, Dolan P. The biomechanics of back pain. 3rd ed. Churchill Livingstone, Chapter 9-15, 2012. ISBN-13: 978-0702043130, ISBN-10: 0702043133

- 9. Forces acting on the thoracolumbar spine
- 10. Mechanical function of the thoracolumbar spine
- 11. Mechanical damage to the thoracolumbar spine
- 12. Cervical spine biomechanics
- 13. Posture, creep and "functional pathology"
- 14. Sensorimotor control
- 15. Spinal degeneration
- 21. Summary and Conclusions

Nordin M, Frankel VH. Basic biomechanics of the musculoskeletal system. 4th ed, Philadelphia, Lippincott William & Wilkins, 2012. ISBN-13:978-1609133351, ISBN-10:1609133358

- Chapter 1: Introduction to Biomechanics: Basic Terminology and Concepts
- Chapter 2: Biomechanics of Bone
- Chapter 3: Biomechanics of Articular Cartilage
- Chapter 4: Biomechanics of Tendons and Ligaments
- Chapter 5: Biomechanics of Peripheral Nerves and Spinal Nerve Roots
- Chapter 6: Biomechanics of Skeletal Muscle
- Chapter 7: Biomechanics of the Knee
- Chapter 8: Biomechanics of the Hip
- Chapter 9: Biomechanics of the Foot and Ankle

Wisnes AR. Lærebok i biomekanikk. Cappelen Damm akademisk, 2013, ISBN/EAN: 9788276349207

- 1. Kva er biomekanikk?
- 2. Bekkenbuen (hofte, stående, gange)
- 3. Skulder og albue

4. Kne og ankel
5. Rygg og forside
6. Sener og ligamenter
7. Beinvev og leddbrusk

Artikler:

Khan and Scott 2009, Mechanotherapy: How physical therapists prescription of exercise promotes tissue repair”. [Br J Sports Med.](#) 2009 Apr;43(4):247-52.

Magnussen, Langberg and Kjaer. The patogenesis of tendinopathy: balancing the response to loading. [Nat Rev Rheumatol.](#) 2010 May;6(5):262-8

Willy RW. A pathomechanical paradigm for treating the injured runner. Norwegian Journal of Sports Medicine 2013: 28 (3), 6-10

Ressurslitteratur

Simonsen EB, Hansen LK. Lærebog i biomekanik, Munksgaard Danmark, København 2007
ISBN-13:978-87-628-0615-3

Wiktorin CvH, Nordin M. Tillämpad Biomekanik, Studentlitteratur AB, 2011. ISBN
9789144057132

Artikler:

Kulas AS, Hortobagyi T, DeVita P. Trunk position modulates anterior cruciate ligament forces and strains during a single-leg squat. Clin Biomech (Bristol , Avon) 2012 Jan; 27 (1): 16-21.

Topp KS, Boyd BS. Structure and biomechanics of peripheral nerves: Nerve responses to physical stresses and implications for physical therapists practice. Physical Therapy 2006: 86(1): 92-109.