Elenco di alcuni siti dove vi è la letteratura in cui si mostra l'utilità dell'analisi del movimento:

http://jneuroengrehab.com/content/3/1/4
Utilità del MO per la riabilitazione del passo

http://books.google.com/books?hl=it&lr=&id=e_WKGCDFOxgC&oi=fnd&pg=PR7&dq=%22motion+analysis+%22+optical+marker+rehabilitation&ots=arwhAgTNEx&sig=G_OGGfSmpyAxKoXYdP1d7djV35I#PPA12,M1
Libro on-line sull'analisi del cammino

http://ajsm.highwire.org/cgi/content/abstract/32/4/975
Normalità del movimento del ginocchio

http://www.smpp.northwestern.edu/~smpp_pub/Keshner(2004)AssistiveTech.pdf
Indicazioni per la postura

http://www.seaturtle.org/PDF/Hansen_2002_JBioMech.pdf
Per l'analsi del cammino

http://www3.interscience.wiley.com/cgi-bin/abstract/112218813/ABSTRACT?CRETRY=1&SRETRY=0
Rachide cervicale

Three-dimensional motion patterns during active bending in patients with chronic low back pain - gruppo di 6 »
T Lund, T Nydegger, D Schlenzka, TR Oxland - **Spine**, 2002 - spinejournal.org
... The effect of **marker** configuration and placement on kinematic **...** Clinical Biomechanics of the **Spine**. **...** An in vivo assessment with precision **motion analysis** system. **...**

Predicting the vertebral inclination of the lumbar spine

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Formats available: PDF (English)

Abstract

The objectives of this study were to examine the accuracy of the external stick marker method in the assessment of sagittal plane vertebral inclination (L_1 to S_1) during trunk flexion and to develop regression equations for predicting vertebral inclinations of the lumbar spine. Lateral radiographs of 16 subjects were taken from the upright position to a trunk flexion of 90°, in 30° increments. Each subject was radiographed in only three of the four torso positions to minimize the risks of radiation. The inclinations of the vertebrae in the radiographic view were then obtained. The results show that the stick marker technique is a poor protocol for measuring vertebral inclination of the lumbar spine. During trunk flexion, the upper vertebrae incline linearly and the lower vertebrae incline exponentially. This is verified by the finding that the best-fit equations selected by regression techniques were linear at the upper vertebrae (L_1, L_2 and L_3) and non-linear at the lower ones (L_4, L_5 and S_1), with a mean R^2 value of 0.964. The inherent difference in motion pattern between the vertebrae of the lumbar spine during trunk flexion is discussed for clinical and ergonomic purposes.
Keywords: Vertebral; Inclination; Linear; Nonlinear; Equations; Stick; Marker; Technique

Come evitare la radiografia ed essere più affidabili rispetto a misure con “bacchette”.

http://ieeexplore.ieee.org/xpl/freeabs_all.jsp?arnumber=1404315
Analisi del movimento e neurologia

http://www.biomedcentral.com/1472-6882/3/1
La palpazione è una tecnica molto usata per fare diagnosi di patologie del rachide, ma è valida? Bisogna usare metodi oggettivi per valicare tale tecnica. L’articolo discute questo argomento.

http://csdl2.computer.org/persagen/DLAbsToc.jsp?resourcePath=/dl/proceedings/&toc=comp/proceedings/nam/1997/8040/00/8040toc.xml&DOI=10.1109/NAMW.1997.609859 (odontoiatria e chirurgia maxillo facciale)

Position-sensing technologies for movement analysis in stroke rehabilitation

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Three-dimensional rotations of human three-joint fingers: an optoelectronic measurement. Preliminary results

Recent optoelectronic systems were developed for three-dimensional (3D) kinematic analysis of human motion. These systems have the advantages of being non-invasive and non-irradiating. The current study was based on the VICON optoelectronic system. A validation of the protocol was made among a sample of volunteers for further direct clinical applications. An experimental protocol was set up with adaptations to the requirements of finger analyses (multiple infrared markers inside

small-sized capture volumes). The set-up and the protocol details are described. Kinematic studies consisted in recording the movements of the right hand of six volunteers (free from any visible pathology). Results were displayed for the joints of each three-joint finger with calculation of 3D rotations. Metacarpophalangeal (MCP), proximal interphalangeal (PIP) and distal interphalangeal (DIP) flexion angles ranged from 78° to 118°, 72° to 119° and 9° to 66° respectively. Lateral angles ranged from 5° to 39° (MCP), 4° to 39° (PIP) and 4° to 30° (DIP). Mean longitudinal axial rotations of MCP, PIP and DIP joints ranged from 11° pronation to 26° supination. The index finger was in a global pronation position (five of the six specimens). The fourth and fifth fingers were in a global supination position in every case. The third finger was in a more variable global rotation (pronation in four of the six specimens). An experimental protocol using an optoelectronic system (VICON) has been developed for a kinematic analysis of three-joint finger. A global measure study should be initiated among a wider sample of adults. A database should be created with direct clinical applications. Patients' kinematic deficits could be graded either for standard movements (flexion/extension and abduction/adduction) or for longitudinal axial rotations.