

REPORT ON CLINICAL TESTING OF THE PRODUCT

Name of the product: chair ErgonomiS Basic

Manufacturer: K&H Solutions, Ltd.

Manufacturer's address: Jesenna 2695, 08001 Prešov, Slovakia

Manufacturer's description of the product:

The supposed purpose and utilization of the chair: utilization of an unstable ergonomic seat as a prevention and treatment of spinal disorders based on a correct pelvic posture and optimal load of trunk stabilization muscles.

Place of clinical testing: Physiatric Rehabilitation Department, Hospital Košice-Šaca, JSC, 1st private hospital, Železiarenska 14, 04015 Košice-Šaca

Testing conducted by: MUDr. Ľudovít Želinský, PhD
head doctor of PRD

Qualification and experience: 33 years of practical experience in the field physiotherapy, balneology and medical rehabilitation

Clinical testing began on: 20th October, 2010

Clinical testing completed on: 8th November, 2010

Range of the product evaluation:

Evaluation of the entire esthetic appearance, the materials used, surface finish, ergonomics, adjustment variability, product safety and stability, subjective feeling of ergonomic seating comfort, innovation contribution of the product and the conformity with the purpose of the product declared by the manufacturer.

Product evaluation:

Product principle:

The basic principle of the chair ErgonomiS Basic is based on the sitting on a 3D unstable seat placed on a ball pivot, which allow dynamic sitting. Such an "active" sitting supports the activity of the trunk and pelvis muscle stabilizers. This is declared as a preventive and therapeutic moment.

Evaluation of the product appearance:

Metallic parts of the chair are made of eloxal aluminium combined with 19% of a matte colour and chrome. Elastic mesh Igloo was used for backrests, while the matte upholstery Sussex was used to cover the seat.

Evaluation of safety and individual ergonomics:

The chair has a very good stability and movability in space, however, the user, however, should be careful when sitting down and standing up while the seat is unstable – not arrested. This fact was not considered as the product's weakness, but as a part of a target effect (purpose) of the product. A highly positive contribution in that sense is the seat arresting by the use of an adjuster which allows to use the chair for both dynamic and static/classical sitting. This optimal combination is suitable especially during the starting phase of the chair utilization, eventually when sitting for a long period of time during a "relaxing" phase.

A subjective evaluation of sitting in the chair is very good, primarily thanks to its ergonomic parameters, variability of the seat height as well as the armrests height adjustment. Moreover, the armrests can be adjusted in three horizontal positions. This solution is especially useful when working on a PC. The chair stability during sitting is also sufficient, including its maximum load 140 kg which satisfies most of the population.

Knowledge obtained from clinical testing:

Unstable sitting permanently requires active correction of the entire body posture by means of abdominal, back, pelvic and limbs muscles. Balancing movements of the trunk during dynamic sitting increase biomechanical response requirements for a correct coordination as well as a sufficient strength of the mentioned muscles. From this point of view, the considered product provides suitable conditions for:

- strengthening of back stabilization system muscles during a relatively passive physical activity when sitting,
- prevention of muscle imbalance occurrence,
- improvement of body posture not only during sitting but in common activities as well,
- correct posture of pelvis and trunk,
- proportional load of intervertebral discs,
- improvement of diaphragm activity, trunk breathing movements,
- improvement of a pectoral girdle and a head position.

Taking into account biomechanical and clinical aspects, dynamic sitting differs diametrically from passive sitting in stable chairs which is controversially considered "comfortable" sitting. Sitting on conventional seats leads to attenuation of physical activity and muscles coordination which are important for the maintenance of spinal and body stability.

Conclusion:

The constructional, safety and ergonomic parameters of the chair ErgonomiS Basic satisfy the declared properties relating to the utilization of a dynamic seating principle. A combination of a stable and unstable seat positions, which are suitable for an adaptation phase, eventually a relaxing phase of sitting, can be considered such a construction solution that exceeds standard. For the mentioned reasons, the chair can be recommended as a prevention of civilization disorders of a musculoskeletal system connected with a sedentary lifestyle. It has favourable effects on school-age users, preferably it should be used by persons working in professions which involve the predominance of the sitting posture.

Kosice 11th November, 2010

MUDr. Ľudovít Želinský, PhD
head doctor
Physiatric Rehabilitation Department
Hospital Košice-Šaca, JSC
1st private hospital



REPORT FROM CLINICAL TRIALS OF THE PRODUCT

Name of the product: Chair ErgonomiS Basic
Manufacturer: K&H Solutions, Ltd.
Manufacturer's address: Jesenna 2695, 080 01 Presov, Slovakia

Description of the product by the manufacturer:

Intended purpose and use of the product: utilization of the dynamic ergonomic seating for the prevention and treatment of different spinal disorders, based on the correct posture of the pelvis and optimal loading of the trunk muscles.

Clinical trials conducted at: Department of Functional Diagnostics and Sport Medicine,
Central Military Hospital SNP Ruzomberok

Clinical trials conducted by: MUDr. Sykora Juraj
Head doctor of DFDSM

Clinical trials began on: 10.03.2012

Clinical trials completed on: 24.05.2012

Safety and ergonomic parameters:

Due to its ergonomic parameters, variability of height adjustments and vertical and horizontal adjustments of the armrests is the subjective evaluation of sitting on the chair ErgonomiS Basic very good. This solution is especially beneficial when working with a PC. Stability while sitting on the chair is sufficient as well as the limitation of 140kg load capacity which meets the majority of the population.

Conclusion:

The chair ErgonomiS Basic with its design, safety and ergonomic parameters meets all standards of dynamic sitting as declared by the manufacturer. Its unique Move&Stop® seating system combines the positive effects of the orthopaedic ball and comfort of ergonomic chair. The fixation of the seat movement is especially useful when you start using the chair, in the cases where spine damage already occurred or during postoperative period. Fixing the seat for about 20 minutes every 3-4 hours makes the effect of dynamic sitting even more efficient. This product is suitable for all people with sedentary lifestyle but also for everyone who wants to sit healthy.

For all above mentioned reasons I recommend this chair to all patients who are suffering from back pain.

In Ruzomberok

24.05.2012

MUDr. Sýkora Juraj
Primár OFDTL
ÚVN SNP
Ružomberok FN

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