



## Background Information

Reasons for Poor Sleep in Various Clinical Pictures  
and the Effects of Thevo Mobility Beds

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**Description of clinical picture:**

Dementia describes a group of symptoms that causes changes in brain function, characterized by a slow progressive breakdown of nerve cells and nerve cell contacts.

**Symptoms in general:**

- Forgetfulness
- Imprecise thinking
- Poor concentration
- Impairments in planning and acting
- Disorientation
- Speech disorders
- Restricted judgment
- Personality changes
- Listlessness and withdrawal

**Effects on sleep:**

- Sundowning Syndrome (increased confusion and restlessness in the evening)
- Severe disorders of awake/sleep rhythm
- Roaming behavior due to disorientation
- Anxiety attacks at night
- Increased daytime sleepiness
- Depressive moods
- Waking up frequently at night

**Appropriate mobility bed: ThevoVital****Effects of ThevoVital:****Integrated MiS Micro-Stimulation®**

- Sense of security with improved body perception
- Less urge to move or roam
- Less irritability in the daytime
- Better use of staff time at night and more time for caregiving
- Easier handling for untrained staff

**Reduced need for sedation**

- Less side effects
- Reduced care efforts

**Optimal supplement of the care concept for persons with dementia**

- Helps support fall prevention

**Hygienic design**

- No exposed component parts
- Removable and washable mattress covers
- Enhanced satisfaction of caregivers, patients, and their families

**Description of clinical picture:**

Parkinson's is a progressive disorder of the nervous system, primarily characterized by disturbed random and involuntary movements.

**Symptoms in general:**

- Slowing or freezing of movement (hypokinesia up to akinesia)
- Muscle stiffness (rigor)
- Trembling (tremor)
- Depression

**Effects on sleep:**

- Nightly stiffness and immobility
- Pain caused by muscle stiffness (rigor)
- Leg movements: Restless Legs Syndrome (uncontrollable urge to move legs)
- Lively dreams, nightmares and restlessness
- Urge to urinate, incontinence
- Increased daytime sleepiness
- Depressive moods
- Waking up frequently
- Sleep problems caused by medication
- Excessive night sweats

**Appropriate mobility bed: ThevoCalm****Effects of ThevoCalm:****Integrated MiS Micro-Stimulation®**

- Relaxes muscles and calms restlessness
- Compensation of sleep problems caused by medication
- Optimal supplement and support of therapeutic concept
- Improvement of entire pathology and reduction of daytime sleepiness

**Less sleep problems requiring medicinal treatment**

- Less side effects
- Reduced daytime sleepiness
- Better success in therapy

**Optimal firmness of mattress**

- Supports mobility when turning, changing positions, moving to a vertical or sitting position
- Reduced nightly akinesia (immobility)
- Reduced nightly backache
- Less tension (dystonia) in the morning
- Relieves caregivers and optimizes nursing protocols

**Optimal hygiene during sleep**

- No exposed component parts
- Reduced transpiration at night due to good bed climate
- Removable and washable mattress covers (heavy sweating with Parkinson's)

**Description of clinical picture:**

Cancer describes a malignant neotissue formation. Principally, every organ can be attacked. Cancer exhibits various forms and clinical pictures. Because of this, no general statements can be made with regard to chances of cure and life expectancy. Presently, more than 300 different forms of cancer are known, sometimes substantially varying in treatment options, tendency to form metastases, and chance of survival.

**Symptoms in general:**

- Symptoms are manifold, depending on the organ affected, formation of metastases etc., amongst others:
- Pain
- Weight loss
- Weakness
- Sweating at night
- Depression
- Side effects of chemotherapy (nausea, physical weakness, mucous membrane inflammation, hair loss)

**Effects on sleep:**

- Problems falling asleep and sleeping through the night because of pain
- Tumor pain is worse at night than in the daytime
- Uncomfortable side effect of chemotherapy
- Difficulty making normal position changes

**Appropriate mobility bed: ThevoRelief****Effects of ThevoRelief:****Integrated MiS Micro-Stimulation®**

- Optimal pressure relief (mattress is soft but still supportive)
- Reduction of pain and less sleep problems (sleep problems worsen pain)
- Less likely to require sleep medication
- Relief for caregivers, enhanced quality of sleep

**Economic overall design**

- Suited for reuse (autoclavable)
- Made from high-tech material for premium quality and durability
- Easy in-house maintenance: quick cleaning, low maintenance and repair
- Good price to performance ratio

**Easy handling**

- No manual adjustments necessary
- Ready for use without complex caregiver training

**Description of clinical picture:**

Arthrosis, also termed osteoarthritis, defines cartilage wear that may result in destruction of the affected joint. Osteoarthritis develops due to an imbalance between stress and the capacity of a joint. Probable causes are single-sided stress at work, severe overweight or excessive sport. Arthrosis develops increasingly in old age.

**Symptoms in general:**

- Decreased joint mobility along with joint ache
- Pain with initial movement, vanishing after a few motions
- Aching from fatigue
- Problems bringing the joint to desired position
- Cracking or crunching in the joint
- Heat sensation under stress
- Humid or cold weather worsens ailment
- Swelling sensation without noticeable tissue enlargement
- Sensation of cold

**Effects on sleep:**

- Problems falling asleep due to joint ache
- Waking up frequently due to difficulty changing position

**Appropriate mobility bed: ThevoRelief****Effects of ThevoRelief:****Integrated MiS Micro-Stimulation®**

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**Description of clinical picture:**

Osteoporosis is a widespread disease, which mostly affects women and men in advanced age. Osteoporosis is characterized by a disturbance in bone metabolism, leading to bone mass reduction beyond the normal level and affecting bone structure. The bone becomes porous and loses stability. As a consequence, the bone can break even under little stress, such as minor falls, lifting a shopping bag, when bending down, or sneezing. Women are more often affected than men.

**Symptoms in general:**

- Pain occurring before the bone fractures
- Spontaneous bone fractures, occurring without any recognizable cause
- Back ache caused by vertebra collapse or fracture
- Painful irritation and muscle tension caused by adopting a relieving posture, induced by frequent fractures of the vertebrae
- Reduction in height by more than 4 cm caused by collapsing vertebrae; this may lead to the costal arch painfully touching the iliac crest
- Belly curved forward; in extreme cases the chest is extremely deformed causing breathing problems
- Baastrup's Syndrome: Spinous processes rubbing against each other resulting in pain
- Fir tree phenomenon: The reduced height makes characteristic skin folds develop from the back to the flanks
- Widow's hump or rounded back

**Effects on sleep:**

- Problems falling asleep due to back ache and muscle tension
- Waking up frequently due to impaired position changes

**Appropriate mobility bed:** ThevoRelief

**Effects of ThevoRelief:****Integrated MiS Micro-Stimulation®**

- Optimal pressure relief (mattress is soft but still supportive)
- Reduction of pain affiliated with pressure and lying and less sleep problems (sleep problems worsen pain)
- Reduction of pain and less likely to require sleep medication
- Relief for caregivers, enhanced quality of sleep

**Economical overall design**

- Suited for reuse (autoclavable)
- Made from high-tech material for premium quality and durability
- Easy in-house maintenance: quick cleaning, low maintenance and repair
- Good price to performance ratio

**Easy handling:**

- No manual adjustments necessary
- Ready for use without complex caregiver training

**Description of clinical picture:**

Decubitus is tissue damage caused by intense, long lasting pressure. Friction and shearing forces may have an additional negative influence on this process. Decubitus is an ulceration of the skin that develops due to pressure of the person's weight on the surface. This can also develop from pressure of the bone applied to the tissue from inside. This is why it is also termed pressure ulcer. These ulcers develop when people with limited mobility sit or lie down permanently. Due to skin changes, reduced mobility, and sensitivity, elderly persons are particularly affected by these chronic wounds.

**Symptoms in general:**

- Depending on form and stage: Itching and stinging leading to strong pain in the affected area
- Noxious odor
- Depression

**Effects on sleep:**

- Problems falling asleep and sleeping through the night due to strong pain

**Appropriate mobility bed:** ThevoautoActiv (up to and including stage III)

**Effects of ThevoautoActiv:****Integrated MiS Micro-Stimulation®**

- No contraindications as with conventional systems
- Patient lies soft and dynamic at the same time
- Reduction of pain affiliated with pressure and lying and less sleep problems (sleep problems worsen pain)
- Reduced care effort
- Enhanced satisfaction of caregivers, patients, and their families

**Decubitus prevention and treatment (up to and including stage III)**

- Without electricity, i.e. no risk of system failures
- No risk of system failures caused by syringes or other sharp objects unlike alternating pressure systems
- Easy repair and maintenance

**Optimal for care communities with high decubitus rate**

- Economical due to reuse (autoclavable)
- Supports nursing protocols
- Good price to performance ratio

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**Symptoms in general:**

- Depending on form and stage: Itching and stinging leading to strong pain in the affected area
- Noxious odor
- Depression

**Effects on sleep:**

- Problems falling asleep and sleeping through the night due to strong pain

**Appropriate mobility bed:** ThevoActiv (up to and incl. stage IV)

**Effects of ThevoActiv:****Integrated MiS Micro-Stimulation®**

- Additional mobilization of the patient by pneumatic movement impulses
- Additional impulses further promote mobility
- Varied movement patterns prevent and reduce irritation
- Optimal pressure relief
- Reduction of spasticity and contractures

**Decubitus prevention and treatment (up to and including stage IV)**

- No disturbing noise despite additional movement impulses
- Easy repair and maintenance

**Optimal for care communities with high decubitus rate or very immobile patients**

- Economical due to reuse (autoclavable)
- Supports nursing protocols
- Good price to performance ratio

**Description of clinical picture:**

The word plegia means total paralysis of skeletal muscles. Often used as a synonym is the term "paralysis". This, however, is broader and includes muscles or nerve groups. Plegia is usually preceded by another word which indicates the part of the body, organ or system that is affected by the paralysis.

**Symptoms in general:**

- Monoplegia: Total paralysis of a limb or limb section
- Paraplegia: Total paralysis of either both legs or both arms
- Hemiplegia: Total paralysis of one side of the body
- Quadriplegia: Total paralysis of all four limbs, often caused by damage to the spinal cord at the cervical spine

**Effects on sleep:**

- Problems falling asleep and sleeping through the night due to absence of body perception in the paralyzed part of the body
- Inability to make position changes
- Muscle spasms and pain in parts of the body that are not paralyzed

**Appropriate mobility bed:** ThevoFlex

**Effect of ThevoFlex:****Integrated MiS Micro-Stimulation®**

- Optimal pressure relief due to divided level of firmness of the system (softer lower body section, firmer upper body section)
- Reduction of pain
- Enhanced quality of sleep

**Reinforced edge**

- Facilitates transfers (even without transfer aids)
- Reduced care efforts
- Promotes independence of active wheelchair users
- Enhanced quality of life

**Divided level of firmness of the system**

- Softer lower body section
- Firmer upper body section to relief the back
- Reduces risk and helps prevent pressure sores

**Economical overall design**

- Adapted to the special needs of wheelchair users
- Made from high-tech material for premium quality and durability
- Easy in-house maintenance: quick cleaning, low maintenance and repair
- Good price to performance ratio

**Hygienic design for easy and cost saving handling**

- Removable and washable mattress covers

**Description of clinical picture:**

Autism is a pervasive developmental disorder, beginning before a child is 3 years old. Autism affects normal development and various aspects of life, especially social skills and behavior. Boys are more often affected than girls.

**Symptoms in general:**

- Avoiding eye and body contact
- Bizarre movements
- Peculiar language and repetition of the same statement
- Problems eating
- Problems sleeping
- Self-stimulation, at times with severe self-injury
- Obsessive insistence on specific rules
- Often extraordinary talents in certain areas (calculating, music, technical disciplines, etc.)
- Not playing with other children
- Fixation on special topics
- Refusing changes
- No fear of normal hazards

**Effects on sleep:**

- Problems falling asleep
- Waking up frequently at night: Child is not able to fall back to sleep without help

**Appropriate mobility bed:** ThevoSleepingStar

**Effects of ThevoSleepingStar:****Integrated MiS Micro-Stimulation®**

- Improved body perception during sleep with MiS Micro-Stimulation®
- Helps child fall asleep faster and wake up less often during the night
- Enhanced quality of sleep
- Naturally increases power of concentration and cognitive abilities
- Increases success of therapy

**Hygienic design for easy and cost saving handling**

- Removable and washable mattress covers

**High durability and premium quality****Description of clinical picture:**

ADHD is the abbreviation for Attention Deficit Hyperactivity Disorder. Attention problems, impulsive behavior, and extreme restlessness (hyperactivity) are characteristics of this disorder. The disease is also termed as: Hyperkinetic Syndrome or Attention Deficit Syndrome (ADD). The syndromes usually occur in young children, and often remain in adulthood.

**Symptoms in general:**

- Impaired attention (day dreaming, easily distracted, forgetfulness, absent-mindedness, mood swings, stimulation seeking)
- Impulsivity (impatience, vigorous outbursts of temper, danger from carelessness, excessive speaking)
- Motor hyperactivity

**Effects on sleep:**

- Problems falling asleep
- Waking up frequently at night: Child is not able to fall back to sleep without help

**Appropriate mobility bed:** ThevoSleepingStar

**Effects of ThevoSleepingStar:****Integrated MiS Micro-Stimulation®**

- Improved body perception during sleep with MiS Micro-Stimulation®
- Helps child fall asleep and wake up less often during the night
- Enhanced quality of sleep
- Naturally increases power of concentration and cognitive abilities
- Increases success of therapy

**Hygienic design for easy and cost saving handling**

- Removable and washable mattress covers

**High durability and premium quality**

**Description of clinical picture:**

Severely immobile children or children in coma vigil need additional movement impulses.

A balanced ratio between relaxation and movement provides restorative sleep.

In addition, risk of pressure ulcers is minimized.

**Symptoms in general:**

- Problems with body perception during sleep
- Spasticity and contractures
- Pressure ulcers caused by immobility
- Itching and stinging leading to strong pain in the affected area

**Effects on sleep:**

- Problems falling asleep
- Waking up frequently at night: Child is not able to fall back to sleep without help

**Appropriate mobility bed:** ThevoSleepingStarA

**Effects of ThevoSleepingStarA:****Integrated MiS Micro-Stimulation®**

- Additional mobilization of the child by pneumatic movement impulses
- Additional impulses further promote mobility
- Improved body perception during sleep with MiS Micro-Stimulation®
- Reduction of spasticity and contractures
- Helps child fall asleep faster and wake up less often during the night
- Enhanced quality of sleep

**Decubitus prevention and treatment (up to and including stage IV)**

- No disturbing noise despite additional movement impulses
- Easy repair and maintenance

**Optimal for care communities with high very immobile children**

- Economical due to reuse (autoclavable)
- Supports nursing protocols
- Good price to performance ratio





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