Age simulation suit GERT

GERT creates the experience old age



Age simulation suit GERT

GERontologic Test suit GERT

The age simulation suit **GERT** offers the opportunity to experience the impairments of older persons even for younger people.

The age-related impairments are:

- opacity of the eye lens
- narrowing of the visual field
- high-frequency hearing loss
- head mobility restrictions
- joint stiffness
- loss of strength
- reduced grip ability
- reduced coordination skills



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The age simulation suit **GERT** consists of a set of separate components. By their interaction an effect very similar to the impairments of the sensomotoric skills in old age can be achieved.

Especially the age-related walk and the changed grip ability are simulated very close to reality by the age simulation suit **GERT**.

But also the increased mental load and the soaring movement uncertainty will be understandable when wearing the age simulation suit **GERT**.

Those who tried the age simulation suit **GERT** will have a better understanding of elderly persons' behaviour.

The age simulation suit **GERT** is therefore very applicable in the apprenticeship and advanced training of experts but also in the development of products and services for elderly people.



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Effectiveness of age simulation

At the Julius-Maximilian University of Würzburg (Dr. med. S.A. Filz, Dr. med. W. Swoboda et al.) the effectiveness of age simulation in the education of medical students has been evaluated.

In doing so, the students have passed a practical course using an age simulation suit. The subsequent interview of the participants showed following results:

Ability to empathize the life in old age very well after the practical course: 83% of the participants.

Ability to put oneself in the situation of an elderly person after the practical course: **90**% of the participants.

Comprehensibility of the physical condition of an elderly person after the practical course: **95**% of the participants.



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Age simulation head

The special goggles cause:

- changed colour perception
- grainy blurring
- glare sensitivity
- narrowing of the visual field

The hearing protection causes:

high-frequency hearing loss

The cervical collar causes:

head mobility restrictions



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Age simulation torso

The weight vest causes:

- bending of the spine
- tilting of the pelvis
- postural weakness
- mobility restrictions
- sinking strength
- higher physical load
- decreasing sense of balance



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Age simulation arms

The elbow wraps cause:

restriction of joint mobility

The weight cuffs cause:

- sinking strength
- changed coordination

The special gloves cause:

- restricted hand mobility
- restricted grip ability
- reduced tactile perception



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Age simulation legs

The knee wraps cause:

restriction of joint mobility

The weight cuffs cause:

- sinking strength
- changed coordination
- unsteady, shuffling gait



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How to buy the age simulation suit GERT

The age simulation suit **GERT** can easily be purchased by public authorities, institutions and companies. **GERT** is not available for private persons.

Simply send an email or fax with your order, the invoice address and if different the delivery address. You may download the order form from the website to easily fill in all necessary information.

If you prefer a VAT-free invoice, please send your VAT ID too. We will ship your order as soon as possible and send the invoice. Usually the delivery will take place within 2 weeks.

The purchase is without any risk. If you are not satisfied, return the delivery within 14 days after receiving it and we will cancel the invoice.

Please have a look at our references for a list of our satisfied customers.





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References for the age simulation suit GERT

Network Aging Research NAR and Institute of Gerontology IfG, Heidelberg University (Germany)

De Montfort Univerity, Leicester (UK)

Blackpool & The Fylde College, Blackpool (UK)

Charité University Hospital, Berlin (Germany)

Centre Hospitalier de la Région d'Annecy (France)

Wexham Park Hospital, Berkshire (UK)

University Hospital of North Tees (UK)

Airbus Operations GmbH, Hamburg (Germany)

Abbott Laboratories, Maidenhead (UK)



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Simulation of an unsteady gait

To simulate the often in old age occurring unsteady gait there are special overshoes available as an accessory for the age simulation suit **GERT**.

The overshoes are easily applied over the shoes of the participant. The additional soft sole imparts a spongy feeling and reduces the ability to perceive the contact with the floor.

Hence, the uncertainty of walking that elderly people often feel is more comprehensible. In combination with the components of **GERT** a much better impression arises in this way.

The application takes only a few seconds.



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Restriction of knee mobility

Knee wraps to restrict the mobility of the knees are already included in the scope of delivery of the age simulation suit **GERT**. These wraps simulate the restriction accompanying healthy ageing.

The knee joints of elderly people are very often affected by pathological changes causing an enhanced restriction of mobility.

Therefore, additional knee wraps are available as an accessory. Due to their reinforced construction with spring steel elements, they are able to simulate even enhanced restrictions, as in the case of knee osteoarthritis.

They are easy to apply and their effect is scalable.



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Simulating shortness of breath in COPD

COPD (Chronic Obstructive Pulmonary Disease) is a severe lung disease with chronic narrowed respiratory tracts, which is mainly caused by smoking. Since the COPD is not curable, it is one of the most common causes of death in the world.

Apart from cough and sputum, shortness of breath is one of the main symptoms of COPD, especially under exertion. The COPD simulator simulates the shortness of breath, as this is not only sporadic, like cough, but permanent and so particularly stressful.

The COPD simulator consists of an adjustable rib bandage for the restriction of the lung volume and an easily adjustable nose clip to reduce the air flow during inhalation and exhalation.

The application is quite easy and requires only a few moments.



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Simulating the senile tremor

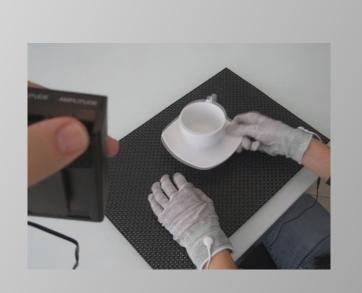
The tremor simulator, a simulator for the mostly in old age increasingly occurring tremor, is available as an accessory for the age simulation suit **GERT**.

Using special gloves and a specific steplessly variable control unit the tremor is absolute realistically simulated by EMS impulses.

The use is very simple because the tremor simulator will be delivered completely prepared and perfectly adjusted.

After the gloves have been put on, the control unit has to be switched on and controlled with only one dial according to the desired tremor intensity.

To feel the senile tremor is a very valuable experience.





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Simulation of hearing loss and tinnitus

About 10% of all people suffer from temporary or permanent tinnitus. The probability of suffering from tinnitus increases with age. 75% of those affected are over 55; 54% are over 65 years old.

80% of tinnitus sufferers have hearing loss. In particular the age-related high-frequency hearing loss increases in addition the effect of tinnitus.

Therefore, the tinnitus simulator consists of hearing protection headphones that realistically simulate the age-related hearing loss and an external device for playing 8 typical tinnitus sounds.

It is very simple and straightforward to use.



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Simulation of eye diseases

There are special simulation glasses for the age simulation suit **GERT**, simulating typical age-related eye diseases.

The set of glasses consists of 6 simulation glasses and will be delivered in a storage box.

The simulated eye diseases are:

- Macular degeneration
- Cataract
- Glaucoma
- Unilateral retinal detachment
- Diabetic retinopathy
- Retinitis pigmentosa



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Hemiparesis simulator

The hemiparesis simulator simulates an incomplete unilateral paralysis, e.g. caused by a stroke.

Stroke is the leading cause of moderate and severe disability. The simulation creates real understanding for those concerned and supports stroke prevention.

The hemiparesis simulator is independent from size and side of the body and can be used both alone and in combination with the age simulation suit **GERT**.

The simulated effects are:

- paralysis of one leg
- paralysis of one arm
- unilateral vision impairment
- unilateral hearing impairment
- speech and swallow disorders



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Simulation of back pain

By using the back pain simulator, people who are not yet suffering from back pain can be motivated for preventive measures and a back-friendly behaviour.

In addition, the back pain simulator can be used to verify working conditions.

But also the empathy for people who suffer from back pain can be enhanced.

The back pain simulator does not cause real pain, but simulates this with a light stimulus.

The use of the back pain simulator is very easy. It is put on like a backpack. Two simulators in two sizes will be delivered.



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You will find all information about the age simulation suit **GERT** including price list at: www.age-simulation-suit.com

or contact us directly:

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