

**PROTAC<sup>®</sup>**  
INTEGRATING SENSES

CONCENTRATION

SLEEP

RELAXATION

WELL-BEING

PEACE OF MIND

RESEARCH



# Protac Offers

## Professionalism

At Protac, we develop, produce and sell sensory stimulating and calming helping aids based on many years of professional experience in occupational therapy. We believe it is important to share our knowledge of the occupational therapeutic principles and to let our customers make their own experiences.

## Professional and attentive advice

We also offer visits on a consultancy basis where we provide advice in relation to specific challenges and provide a non-binding opportunity to try our products in practice. Our therapists also offer to take part in team meetings, in-house seminars and workshops where knowledge sharing of sensory integration and sensory stimulation is in focus.

## Inspiring success stories

In our catalogue you will find a number of cases next to each product, which is feedback, Protac receives from the many users and professionals who have used our products in practice. The different cases are taken from places such as hospitals, schools, kindergartens, rehabilitation clinics, care homes, supported housing and private homes. The cases describe the many challenges our products help to overcome and provide inspiration of how sensory stimulation can be integrated into everyday life.

You can read more cases, and find more information at [protac.dk](http://protac.dk).

Here, you will also find inspiring vidoes on Protac and an explaining video on sensory integration.

Free workshop  
in sensory integration and  
sensory stimulation

Try out our products in practice

Professional advice

Protac has  
employed two PhD-students  
to do further research in the effect  
of the Protac MyFit® ball vest for  
unrestful schoolchildren and  
the Protac Ball Blanket™ for  
psychiatric patients suffering  
from insomnia and  
depression.

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PRO  
DUCTS

**Protac's products help  
many people with**

ADHD  
Anxiety  
Anorexia  
Apoplexy  
Autism  
Cerebral palsy  
Dementia  
Depression  
Multiple sclerosis  
Deafness and/or blindness  
Brain damage  
Huntington's disease  
Hypermobility  
Chronic pain  
Drug and alcohol misuse  
Neurological disorders  
Pain  
Parkinson's disease  
Psychiatric disorders  
Sensory difficulties  
Stress  
Sleep disorders  
Tourette's syndrome  
Learning disability



# The effect of the balls is scientifically proven

All Protac's products contain balls – their weight and deep touch pressure activate both the sense of touch and sense of the muscle and joints.

When the human body and brain function well, we can see, hear, feel, smell and taste. But human beings actually have more than these five senses. Our most important sense is the sense of touch in our skin which registers contact. In therapeutic terms, the sense of touch is referred to as the tactile sense. Touching the skin sends stimuli to the brain and gives us a sense of the body's boundaries. In this way, the skin serves as a marker to help us distinguish between what is 'me' and what is outside 'me'. The sense of touch helps us to establish awareness of our own bodies, and serves to protect us and the way we feel our bodies.

## Changing pressures enhance body awareness

When the stimulation is consistent and lasting, the brain has a 'fadeout function', meaning that the touch ceases to be registered and the sensory impression fades out. To maintain a sense of the body, the pressure must change. When the balls in the Protac products touch the skin through deep touch pressures distributed across numerous points, it helps the brain to register the body to a greater extent than through an even touch. As the balls slightly move and change position when the product is in use, the skin is continuously stimulated in new ways and will 'update' the brain of the boundaries of the body and the surroundings.

Simple stimulation of the skin's tactile sense can engage the brain, but if there is any disorder in the reception of the brain, or in how it processes sensory stimuli, skin contact can be experienced as both painful and very stressful. Deep touch pressure combined with the weight of the moving balls in Protac's products, provide the body with a continual update on the body's surface, which has a calming effect while also stimulating body awareness.

## Calming movement

Another important sense is the sense of muscle and joints, which is also known as the proprioceptive sense. The proprioceptive sense has receptor organs in the joints and muscles which send messages to the brain calming the nervous system. Intuitively, we often use our proprioceptive sense to create a sense of calm. If you are feeling restless, it often helps to go for a walk. If you are feeling impatient, you may fidget on your chair or move your feet – just two of many everyday examples of how we use the proprioceptive sense to create a sense of calm. When the balls in Protac's products places weight to joints and pressure on muscles, it sends a message to the nervous system, which the brain registers as movement. This is why, the weight and the moving balls have a calming effect.



# Protac Ball Blanket™

– a calming and sensory-stimulating helping aid

## Calm, sense of security and better quality sleep

The Protac Ball Blanket™ is a recognised helping aid used to relieve sleep disorders and psychological and motor unrest among children, adults and elderly. The Protac Ball Blanket™ has been developed in line with occupational therapeutic principles about sensory integration, and its positive effect has been scientifically proven.

The Protac Ball Blanket™ is effective at relieving sleep problems of varying degrees. The Protac Ball Blanket™ can be used at night or during the day when there is a need to calm body and mind. The deep touch pressure of the balls provides a clear awareness of the body's boundaries and a sense of calm, grounding and security. This can help to improve the sleep with less awakenings and in this way give more energy during the day.

## Sleep disorders

Sleep is essential for everybody to feel good, be healthy and able to learn. Sleep disorders lead to restlessness, irritation, hyperactivity, reduced stamina, poor concentration and impaired learning ability. Persistent insomnia can develop into depression, anxiety and a weakened immune system. The Protac Ball Blanket™

is useful to relieve sleep disorders and many people with sleep disorders or chronic fatigue use the blanket. The blanket has a beneficial effect whether the sleep disorder derives from daily worries, stress or pain, anxiety, depression, sensory difficulties, learning disability or psychological and neurological disorders.

## Recommended by professionals

Therapists and professionals use the Protac Ball Blanket™ as a tool for sensory stimulation and sensory integration treatment. The blanket is used in sensory rooms, Snoezelen Multi-Sensory Environments, schools for children with special needs and in therapy and treatment rooms.

## Design, size and weight

The Protac Ball Blanket™ comes in cotton or flame-retardant Trevira CS. The Protac Ball Blanket™ is divided into pockets, cassettes or channels, filled with either plastic balls and/or granulate. The blanket is available in different sizes: premature, baby, junior and adult corresponding to an ordinary duvet. The correct blanket size depends on age and size of the user, but also on the model, weight and filling not only assessed according to the user's individual need for sensory stimulation.



### Protac Ball Blanket™

Provides an improved sense of the body's boundary

Increases body awareness

Has a relaxing effect

Provides deep and undisturbed quality sleep

Provides more energy throughout the day

Possible to use throughout the night



# Protac Ball Blanket™

## A broad selection of products

### Protac Ball Blanket™ Flexible

The Flexible range is a further development of the Classic range and consists of the same contents, sizes and pockets of balls. However, these blankets have instead pockets with removable inner bags for the balls. This makes it possible to customise the blankets to the users' individual need for sensory stimulation. Another characteristic of the Flexible range is the movement of the balls, which provide a variation of sensory stimuli. The Flexible range also includes blankets produced of a combination of specially made plastic balls and granulate, providing extra warmth.

It is possible to open up and take apart the blankets in the Flexible range. They are furthermore washable in a regular washing machine.



### Protac Ball Blanket™ Calm

The Protac Ball Blanket™ Calm are sewn into channels where the balls lie in long rows. The Calm range provides, in this way, a different and more calm sensory stimulation than the other blankets. The blankets in this range are compact and can be wrapped closer to the body. The Calm range is developed for users who experience a need for sensory stimulation, and have tactile defensiveness, experience sensitivity to sound or easily experience overstimulation through unknown and varied sensory input.

It is possible to take apart the blankets in the Calm range and they are washable in a regular washing machine.



### Protac Ball Blanket™ Classic

The Classic range is the original Protac Ball Blanket™, but with a new type of specially made and noise reduced plastic balls divided into pockets. This ensures that the movement of the balls provides a variation in the sensory stimuli.

This model is particularly useful for people who need a variation of sensory input in order to experience awareness of their bodies and a sense of calm. The range also includes blankets produced of a combination of specially made plastic balls and granulate, providing extra warmth.

It is not possible to separate the blanket components in the Classic range and these blankets require an industrial washing machine.



### Protac Ball Blanket™ is characterised by

- A wide selection of blankets adaptable to the user's individual needs
- Specially made noise reduced plastic balls
- Flexible and Calm range are washable in a regular washing machine
- Delivered in a practical carrier bag



### Premature birth

*Girl born four weeks premature. Her sleep during the night is characterised by many periods of being awake when she cries and she needs help to fall back asleep. During the most difficult times she has been waking up several times in one hour.*

"The midwife suggested that we let her sleep with the Protac Ball Blanket™. We have tried it now for 14 days and it has truly helped. On good nights she only wakes up once, and during the 14 days where we have tried the blanket, she has only woken up a maximum of three times per night. Incredible progress. We think that using the blanket has made her feel safe and secure, as if she was lying in our arms or close to us. We know that other parents of premature babies have had good experiences with the blanket and we hereby join the club."

### ADHD

*10-year-old girl with Attention Deficit Hyperactivity Disorder (ADHD). Has sensory integration difficulties, especially in relation to touch. Is physically restless. The girl suffers from tactile defensiveness, which makes wearing clothes uncomfortable. She also finds it difficult to be in close physical contact with other people, and she does not sleep well at night.*

She is given the Protac Ball Blanket™ and lies underneath it when she feels it is needed. She starts to sleep underneath the blanket at night, and now sleeps more soundly. She has more energy the following day. Using the blanket has also reduced her tactile defensiveness, so that she is now able to wear long-sleeved tops without feeling uncomfortable.

### Dementia

*Elderly male resident with dementia and increasing anxiety, leading to aggressive behaviour. He resists being moved from one place to another, cared for or bathed. The staff feel they cross his boundaries when they move or wash him.*

The elderly man enjoys the Protac Ball Blanket™ from the first night he tries it. After two or three weeks, the staff mention that he has become a completely different person. Moving and washing him no longer lead to aggressive behaviour. He has started to sing, read the newspapers, and after two months he stood up from his wheelchair several times and walked, something he had not done for a long time.

### Neurological disorders

*Young man with brain damage following a traffic accident. He is restless, and has a poor awareness of his own body and his command of it.*

The Protac Ball Blanket™ helps him to relax and sleep so that he has sufficient energy to take part in his rehabilitation.

### Psychological disorders

*Staff at a psychiatric department.*

"The Protac Ball Blanket™ is used almost daily. Patients find it easy to 'sense themselves', they are less anxious, less aggressive, and feel more secure. This means that we use less sedatives and less physical restraint. We find that the ball blanket prevents and limits aggressive and destructive behaviour. Many patients ask for a ball blanket themselves when they need one, and therefore allows them to help themselves."

### Pain

*Woman diagnosed with fibromyalgia. Has borrowed a blanket from the hospital.*

"I use the Protac Ball Blanket™ when I feel my body is almost breaking apart with pain. It is good to have it placed on top of me. It feels as though it holds your body together. It keeps your muscles warm, and has a relaxing effect. I also use it on the floor, where I roll myself up in it or use it as a mattress. When I am sitting in a chair, the ball blanket is wrapped tightly around me. It is a good position for reading as I am able to rest my arms on the blanket."

***"After the first few nights under the blanket, I was actually quite alarmed by how soundly and well I had slept. I had not thought that it would be possible"***

### Learning disability

*Woman with a learning disability has great difficulties talking and has only limited sign language. Her mental state fluctuates greatly. On bad days, she reacts aggressively towards co-residents and staff if she is not understood or does not receive enough attention. She finds it difficult to 'calm down' again and has previously been given strong sedatives.*

She is introduced to the Protac Ball Blanket™ during 'play and relaxation sessions' in her bed, which is a favourite place. Most of the time, it is now possible to offer her the blanket instead of medicine, and she relaxes. She sleeps with the blanket every night, and asks for it if it is not in her bed.

### Sleep disorders

*38-year-old man with sleep disorders. Has always slept very lightly.*

"I only wake up once or twice and can easily get back to sleep. Previously, it took me up to half an hour to an hour to go back to sleep. This is no longer the case. I snuggle under the Protac Ball Blanket™ and I am out like a light. My wife says that I am more lively and cheerful, and that is even though I spend at least an hour less in bed every night. After the first few nights under the blanket, I was actually quite alarmed by how soundly and well I had slept. I had not thought that it would be possible. During busy periods when I am close to feeling stressed, I still sleep far better with my blanket. I find it all rather remarkable and I am incredibly happy that I had the opportunity to try the blanket."

# Protac blankets with granulate filling



## Protac Granulate Blanket™

The Protac Granulate Blanket™ in a new and improved design. The blanket comprises of many pockets filled with granulate to avoid thermal bridges. The blanket gives sensory input mostly through weight.

We recommend the blanket for the elderly, and for those who suffer from dementia or chronic pain. It is also beneficial to use for children and adults who need an alternative form of sensory stimulation.

## Protac Polystyrene Blanket™

The blankets in our polystyrene range are filled with polystyrene. The blankets provide weight and warmth; we recommend the blankets especially for the elderly and in treatment of pain, but also for those, in general, who need extra warmth.

The range includes two models. The newest model has less volume and can be taken apart and washed in a regular washing machine. The other model has more volume and is recommended for positioning.



Evidence:  
Improved sleep  
for patients with  
dementia

## The range of blankets with granulate filling is characterised by:

- Granulate filling which provide sensory stimulation through weight
- Recognisable
- Close proximity feeling to the body which provides a sense of security and warmth
- The blankets are easy to handle and transport
- Well-suited for patients with dementia, arthritis and chronic pain



# Protac MyFit®

– improves body awareness and has a calming effect

Protac MyFit® is a calming vest for people experiencing motor and psychological unrest. The vest is useful to ease stressful situations, hyperactivity and anxiety. The weight and pressure of the vest and its close proximity to the body, provide a clear boundary of the body and as a result, a pleasant and natural feeling of calm.

## Concentration and learning

Children and adults with concentration and learning difficulties can benefit from using Protac MyFit®. Schoolchildren can wear the vest in lessons, but also during breaks if they find it difficult to play with other children without involving an adult. Pre-schoolchildren can use the vest during group activities, when eating or when playing. Protac MyFit® is helpful for adults who experience difficulties concentrating, for example, in educational contexts, when working at a computer or when reading.

## Daily activities

For adults suffering from anxiety and unrest, Protac MyFit® is a great help when going shopping, working in the garden or workshop, cooking or taking part in other daily activities. For users in supported workshops and classes, the increased body awareness, deriving from wearing the vest, has a calming effect while also improving their concentration.

## Reducing aggressive behaviour

Protac MyFit® is helpful to reduce aggression, anxiety and self-harming behaviour benefitting the users and their surroundings.

## Rehabilitation

Protac MyFit® is both used to strengthen body stability and balance in the treatment of difficulties following a brain damage. The vest can also reduce spasticity and sensitivity difficulties. As part of the treatment of pain, Protac MyFit® increases focus on the body, good posture and muscle relaxation.

## Recommended by professionals

Therapists and professionals use Protac MyFit® in sensory integration treatment and motor training of balance and coordination. The vest is also used for children and adults who find it difficult to work together, collect their thoughts and concentrate, for example during cognitive training, speech therapy, ADL training or treatment using the principles of Affolter, Bobath and Coombes (ABC concept). The vest is also used to relax a patient before physiotherapy.



### Protac MyFit®

Has a grounding effect

Strengthens body awareness

Has a calming effect

Reduces stress, unrest and anxiety

Promotes learning



## Design and sizes

Protac MyFit® is made of an elastic material to make it fit closely to the body. The vest is filled with plastic balls, distributed in channels on the front and back. The size and weight of the vest is adapted according to the users age, weight, chest size and need for sensory stimulation. Full benefit of the vest's sensory stimulation is best achieved when it is closely fitted to the body. The vest is, for that reason, provided with laces at the sides and back, which gives the option of tightening and extending it for the right fit. The laces are placed on the inner side for security reasons

Protac MyFit® with 25 mm balls provides a gentle sensory stimulation due to small balls and light weight. The vests with 38 mm balls provide a more strong sensory stimulation as the balls are heavier.

## Protac MyFit® Easy

For people with limited ability to move or spasticity, we recommend Protac MyFit® Easy. This unique model is easy to put on, whether in a standing or sitting position, as it can be opened on both shoulders. Protac MyFit® Easy has an extra pocket on the back, which can be used to place a GPS tracking device. We therefore

recommend this model for people who are physically weak and have limited movement, such as elderly, people with dementia or users with neurological disorders. Protac MyFit® Easy is only available with 25 mm balls.



## NEW DESIGN – with pockets



## ADHD

*10-year-old boy with ADHD and Attachment Disorder.*

"I had a fantastic experience with a 10-year-old boy with ADHD and attachment disorder who came to me for a social-cognitive interview. He was extremely restless and disturbed, and his defense strategy was to play the fool. I have never before experienced such a remarkable change as happened to the boy after putting on Protac MyFit® – both with his motor skills and emotionally. He sat on his chair and became completely quiet. He was actually able to remain concentrated for 20 minutes, which was fantastic!"

*24-year-old student diagnosed with ADHD.*

"I think Protac MyFit® is a very successful product, both in appearance and effect. Not only do I calm down, I have better posture when I am wearing it. When I am wearing it, it has a massage effect, which is very nice, especially after hard training. It has had a good and calming effect on me at school, and my classmates and teachers have noticed this. Those who have tried it out also react positively, and I could see how they calmed down significantly after 10-15 minutes."

## Autism

*11-year-old boy with infantile autism and learning difficulties. Craves sensory input.*

"He has used Protac MyFit® several times a day while at school. He participates better in class activities and is calm and more collected."

***"I have never before experienced such a remarkable change as happened to the boy after putting on Protac MyFit® – both with his motor skills and emotionally. He sat on his chair and became completely quiet. He was actually able to remain concentrated for 20 minutes, which was fantastic!"***

## Deaf and blindness

*Deaf and blind young woman.*

"I would also like to explain how thrilled I am about my new Protac MyFit® vest. I have not had it for more than a couple of days, but I am already very happy. I have used it a lot during the weekend and I immediately get a sense of how useful this is for me. I use it when I am in front of the computer, when I am on the

sofa with an audible book, and actually also when I am out in the communal kitchen (I live in supported housing). When I am wearing the vest I feel less anxious and overwhelmed when I sit with the other residents. I have a tendency to rock forwards and backwards when I feel restless or insecure. The vest has helped me with my "rocking" so that I feel much more at ease (the rocking has almost disappeared). I am sure that, in the future, I will take the vest with me when, for example, I take part in social events."

## Apoplexi

*45-year-old woman who has suffered a stroke, with paralysis on her left side.*

"It makes it much more easy to get my left foot to rest on the floor and avoid the foot twisting as it usually does. It must be because the vest has a good effect on my spasticity. I can feel my body much better when I sit and work. It is as if it helps me to sit upright. It is good training for me to walk around wearing the Protac MyFit® vest, and it feels comfortable once you get used to it."

## Parkinson's disease

*73-year-old with Parkinson's disease.*

"I use Protac MyFit® throughout the day when I play the piano, write by hand and do practical things around the house. The vest gives me a sense of inner calm, and a feeling of being able to take part in activities. It gives me a sense of security, grounding, deeper relaxed breathing and a more upright posture."

## Motor and psychological unrest

*7-year-old boy.*

"When we were given the opportunity to borrow the Protac MyFit® vest one weekend, the whole weekend was far more peaceful for everyone, and the vest was clearly the reason for this."

*7-year-old boy with severe motor unrest, delayed motor development and is easily distracted.*

"For example, he has learned to ride a bicycle, because, as he says while putting on the vest: I can control my body better when I am wearing the Batman vest."

*52-year-old woman who has difficulty concentrating during seated activities .*

"I can concentrate for longer periods than is usually the case. I also notice that my breathing becomes deeper!"

## Pain

*37-year-old woman with back problems.*

"I feel very relaxed in my body when I'm wearing Protac MyFit®, and the pain goes away. It generates warmth, but not too much. It gives some form of weight sensation and grounding, so it is more easy to collect my thoughts. And it has a very comfortable fit."

# Danish Design

– with documented effect

## Innovative design

We place great importance on function and design. The purpose of our helping aids is to ease every day challenges and increase the user's independence. The products are designed to fit into daily activities. They are discrete, easy to use and handle. This is why all the products are developed in collaboration with a Danish designer, who ensures that the products are well-designed, functional and do not stigmatise disability.

Protac develops the products in collaboration with professionals and with emphasis on feedback from therapists, key staff, health professionals and users. We also use input from seminars and teaching.

## High quality

Protac's products provide high durability. The products are easy to wash, wipe down or move around. Fabric, stitches and materials are of a quality which is made to last and retain their colours over

time. The products are delivered in a bag and for those products which are washable in a regular washing machine, washing bags are included.

## User involvement

User involvement is a key concept in all our new products, including the development and test phase. We take part in a number of conferences and courses in autism, ADHD, dementia, neurology and sleep research to always be up to date with the newest knowledge.

## Research and knowledge sharing

The products from Protac are based on over 25 years of experience in sensory integration and sensory stimulation. The results and effects are documented in a variety of reports and projects. We support research and give an educational grant every year to occupational therapists who wish to develop their research in the field of sensory integration.



## CSR

Protac values the protection of the environment, and safety in all steps of the production process.

The balls used by Protac are TÜV certified and the cotton and flame retardant fabric is Oeko-tex certified.

Our products are CE certified in accordance with the regulation on medical equipment.

**The effect  
is scientifically  
proven**

# Research

– internationally recognised

## RESEARCH PROJECT ON SLEEPING

**Children with ADHD, experience better quality sleep and ability to concentrate when they use the Protac Ball Blanket™**

A Danish research project, conducted in 2011 by The University of Southern Denmark concludes that children with ADHD using the Protac Ball Blanket™ fall asleep faster and experience a less interrupted sleep pattern. The study also showed that, according to the children's parents and teachers, the children found it easier to concentrate throughout their day.

- The use of the Protac Ball Blanket™ reduces the times it takes to fall asleep for the children with ADHD by almost 40%
- The evenings where the children with ADHD used more than 30 minutes to fall asleep fall from 19 to 0 %
- The teachers of these children experienced an improvement of 10 % in the attention and concentration from the children

Following the study, the researchers concluded that the Protac Ball Blanket™ is a good alternative when treating sleep difficulties in children with ADHD, and that the blanket constitutes a supplement to treatment with medication of children's ADHD symptoms.

The project was conducted by Professor of child psychiatry, Niels Bilenberg from Odense University Hospital in Denmark, and Child psychiatrist, Allan Hvolby from the child and adolescent psychiatric department in Esbjerg are responsible for the research project. The results were published in the internationally recognised journal, *Nordic Journal of Psychiatry* in April 2011 with the title "Use of Ball Blanket in attention-deficit/hyperactivity disorder sleeping problems".

Protac has employed two PhD-students to do further research in the effect of the Protac MyFit® ball vest for unrestful schoolchildren and the Protac Ball Blanket™ for psychiatric patients suffering from insomnia and depression.

## RESEARCH PROJECT ON PSYCHIATRY

**Systematic application of sensory integration reduces the need for restraints in psychiatric units**

The use of coercion within psychiatry is a major challenge for both patients, staff and the society. A research project has now shown that a systematic approach to sensory integration and sensory modulation can reduce the need for restraints in psychiatric units.

- 38% decrease in the need for restraints
- 46% decrease in the need for forced medication
- Total decrease of 42% in the use of restraints and forced medication

The study is based on the SPI method, which was developed in collaboration with the *Syddansk Sundhedsinnovation, Region Syd* (Health Innovation Centre of Southern Denmark). The method entails a structured approach to human senses: Touch, hearing, smell, taste, sight, muscle-joint position sense and the sense of balance. The method includes a specially designed training programme which teaches nursing staff how to prevent situations requiring coercion (e.g. physical restraint or forced medication) by offering patients sensory-stimulating activities.

The research paper, "Applying sensory modulation to mental health inpatient care to reduce seclusion and restraint: a case control study" is written by Charlotte Andersen, Anne Kolmos, Kjeld Andersen, Volmar Sippel & Elsebeth Stenager and published in the *Nordic Journal of Psychiatry* in June 2017.

Protac participates in several current research project to constantly seek knowledge and documentation in new areas. Recently, we have seen a very positive effect for patients with chronic pain and dementia.

**For more information [www.protac.dk](http://www.protac.dk)**

The original research articles can be ordered at Protac

**NEW  
IMPROVED  
MODEL**

# Protac SenSit®

– envelops the body and makes you feel calm

## Calm and concentration

Protac SenSit® is a sensorystimulating chair providing a sense of security, bringing calm and improving concentration. Children, adults and elderly suffering from psychological and physical unrest can benefit from Protac SenSit®. The chair is filled with balls in the seat and back, and in the special neck and side wings. The wings can be placed around the body as required, enveloping the user.

## Applications in practice

Protac SenSit® can be used in numerous ways. It is used in many kindergartens, schools, psychiatric units, activity centres, somatic hospitals, in private homes and waiting rooms.

Protac SenSit® can be used for relaxation when the user is watching TV or sitting with a computer. The chair helps children, who experience motor restlessness, to concentrate when doing their homework or carrying out activities requiring their full attention. In kindergartens and schools, Protac SenSit® can be a breathing space for children during a busy school day. In psychiatric units and day care facilities for adults with learning disability, the chair provides a 'safe zone' for those who find it difficult to be surrounded by lots of people.

## Recommended by professionals

Therapists and professionals use Protac SenSit® as a tool for

sensory stimulation in sensory rooms, Snoezelen Multi-Sensory Environments and in therapy and treatment rooms. The chair strengthens the user's sense of his or her own body and has a calming effect. The chair can also be used during preliminary treatment so that users are relaxed, calm and focused on their motor training.

## Alternative sitting position

Protac SenSit® is a good alternative for wheelchair users and bed-ridden patients who need to change position during the day. The stable shape supports the neck, head and body, and the flexibility of the balls in the seat and back makes it easy to adjust the chair and create a comfortable sitting and resting position.

## Design and colours

Protac SenSit® has a modern design and is available in seven colours. The chair is available in two separate heights to match the height of the user. The flame retardant cover can be washed in a regular washing machine. For daily cleaning, we recommend using a wet cloth or wet wipes with alcohol.

## Protac SenSit® Puff

Protac SenSit® Puff can be used as a footstool for the Protac SenSit®. The balls in the top section of the footstool stimulate the senses, as well as being comfortable to sit on. Protac SenSit® Puff is available in seven colours which all match the colours of the chairs.



## Protac SenSit®

Envelops the user

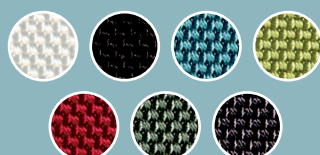
Calming and relaxing

Increases a sense of security

Enables change in positions

Ensures a comfortable sitting position

Available in the seven colours:



## **ADHD**

*13-year-old boy with ADHD.*

"I can clearly see an improvement in all forms of contact and communication with the boy, as well as in his ability to physically relax, while he is undergoing occupational therapy in the Protac Sensit® chair, and afterwards. He spontaneously seeks out the chair, and often pretends to have fallen asleep so he can stay in the chair when training is over. He is noticeably more tranquil and more co-operative, and is more happy after having used the chair. He often winks at me and says: 'I will take this chair home with me one day, when you're not looking.'"

**"Eventually we will have to buy one of these chairs. It is the only thing that can make our son so calm"**

Protac Sensit®

## **Anxiety**

*User at a day activity centre.*

"I was taking part in a group activity when suddenly I had a serious panic attack. I paced the floor restlessly - afraid that I would fall. The Protac Sensit® chair felt like a 'cosy nest' to me. The physical agitation gradually disappeared, and the chair was comfortingly warm. After 10-15 minutes, my panic eased. After about half an hour, I could rejoin the group. The wings of the chair are designed in such a way that it feels as if they are almost hugging you."

## **Neurological disorders**

*64-year-old man suffering from multi-infarct dementia (stroke). It has proven virtually impossible to convince him that he needs a rest. The team has tried a variety of strategies, which mostly results in the patient protesting and not wanting to cooperate.*

Protac Sensit® turned out to be a satisfactory solution – for him and for the staff. He found the chair useful for relaxing, because he did not have to lie down. The staff helped to make him comfortable, drew the curtains and made sure the room was quiet. Several times, he slept in the chair, and on a couple of occasions he slept for up to two hours. He has also used the chair through his own initiative when he needed a rest. The chair stood in his room for three weeks as part of his rehabilitation programme. Having a good, long rest meant that he was more relaxed and coherent, which had a positive effect on his rehabilitation process.

## **Motor and psychological unrest**

*Easily distracted 6-year-old boy with motor unrest.*

After having used Protac Sensit® a few times, he says, "Please tell my mum where she can buy a chair like this." The boy enjoys burying himself completely underneath the neck cushions and wings, and asks to have a ball blanket over him too. His parents see how much he enjoys the chair and try to make similar seating for him, but as his mother says, "Eventually we will have to buy one of these chairs. It is the only thing that can make our son so calm." The boy uses the chair at the end of every training session. It means that he is more tranquil, has improved concentration and is physically more calm when he leaves the training room – and he often remains calm for the rest of the day.

## **Psychiatric disorders**

*20-year-old woman with psychological difficulties and a history of attempted suicide is now hospitalised in a psychiatric department. During her hospital stay, she is prone to serious self-harm.*

Initially, the woman used the Protac Sensit® chair with the hospital staff's encouragement, but gradually she has developed a strategy of her own for using the chair. She feels that she regains control of her body and mind and is more able to resist the temptation to self-harm. The chair is placed in her room where she can use it when the need arises. The chair gives her a feeling of well-being and physical relaxation.

## **Learning disability**

*38-year-old with a learning disability. Lives in a residential unit and has his own room.*

He uses the Protac Sensit® chair both in his room and in the communal areas. He prefers being in his room; never stays in a communal area for more than half an hour at a time, and is generally considered restless. He has the Protac Ball Blanket™ and he loves using it every day.

Staff at the unit observe that he enjoys using the chair. He sits in the chair for half an hour, to an hour and a half, at a time; longer than he would previously have sat in any chair. Staff observe that he is less physically agitated and that he does not pace the floor as restlessly nor as frequently, as he used to. He also spends more time sitting in the communal area. The biggest advantage is that he does not have to sleep in order to achieve the relaxation which the balls now provide. The chair makes it possible for him to withdraw into himself and to receive stimulation without falling asleep. It takes him less time to prepare himself for social activities and he is more awake and ready to take part in activities.

## **Dementia**

*68-year-old with Alzheimer's dementia. Lives at a care home for people with dementia. Her everyday life is characterised by constant motor unrest and restless wandering along the corridors. In addition, she shows a high degree of physical unrest and hoarding disorder. She cannot find the internal peace needed to concentrate on single sensory input in activities such as eating and exercising.*

In the Protac Sensit® Straight chair, she feels safe enough to stay seated due to the height and stability of the chair. The upright position makes it possible for her to feel secure and in control, and as a result is able to relax and feel calm. She is able to sit down and get out of the chair unaided. When she has used the chair, she feels calm enough to, for example, eat without wandering. The chair positively affects her motor and psychological unrest and her hoarding disorder.

**"The upright position makes it possible for her to feel safe and in control, and as a result is able to relax and feel calm. She is able to sit down and get out of the chair unaided"**

Protac Sensit® Straight

# Protac SenSit® Straight

– an alternative in the Protac SenSit® range

Protac SenSit® Straight is also developed according to the same principle of sensory stimulation with balls in the seat and wings, but is especially suitable for people who experience difficulty sitting down and getting up unaided.

## Ergonomics and comfort

The chair is made on a base of foam, which gives a solid and stable form. It is shaped in a way which provides support when getting out of the chair. The back of the chair is constructed as a light spring and the cushion at the back is flexible, providing extra comfort. Provided is also a separate wedge cushion which makes it possible to adjust the depth of the seat.

The cushion on the seat is reversible. One side has pressure distributing foam; the other sensory stimulating balls, which adds to the sensory stimulation of the wings.

## Independence

The height of the seat makes it easy to get out of the chair for elderly or people with reduced physical abilities. The wide edge along the seat and back of the chair acts as a good support when getting up – assisting the user and carers.

## Applications in practice

The form and design of Protac SenSit® Straight makes it easy to complement existing furniture in a variety of environments, such as care homes, activity centres, psychiatric centres, hospitals and supported housing.

It can also be used in different types of sensory and therapy rooms, kindergartens, schools and private homes.

## Design and colour

Protac SenSit® Straight is available in three colours. The flame retardant cover can be washed in a regular washing machine. For daily cleaning, we recommend using a wet cloth or wet wipes with alcohol.

## Protac SenSit® Puff

Protac SenSit® Puff can be used as a footrest when seated in the Protac SenSit® Straight. The balls in the top of the Puff have a sensory stimulating effect and is a comfortable place for the feet to rest. Protac SenSit® Puff is available in seven colours to match the chairs.



## Protac SenSit® Straight

Supports and envelops the user

Provides calm, relaxation and security

Ergonomic and comfortable design

Height and depth of seat makes it user friendly for elderly

Available in three colours:





# Protac SenSit® Puff

– a puff for the Protac SenSit® range

## Protac SenSit® Puff

Protac SenSit® Puff can be used as a footrest for the chairs, Protac SenSit® and Protac SenSit® Straight. The balls in the top of the Puff have a sensory stimulating effect and is a comfortable place for the feet to rest. Protac SenSit® Puff stimulates the tactile and proprioceptive senses which supports a feeling of calm and concentration. In addition, the puff enables a better seated position and calms unrestful legs and feet.

## Seated activities

Protac SenSit® Puff also works well as a stool in kindergartens and schools. It is, for example, possible to use the puff as chairs in a classroom during a lesson or as stools for children in pre-school classes.

## Design and colours

Protac SenSit® Puff is 40 cm high and is designed to be used either as a footrest or a stool to sit on. The oval shape makes it possible to also sit across the puff which enables a good and upright seating position. It is filled with polystyrene and 50 mm specially made plastic balls in the top layer. Protac SenSit® Puff is available in seven colours.



## Protac SenSit® Puff

Promotes a grounding feeling

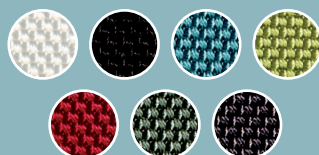
Calms unrestful feet

Promotes a good sitting posture

Provides concentration

Supports learning

Available in seven colours:



**ADHD**

*9-year-old girl, with learning disability and ADHD. She uses Protac GroundMe® at mealtimes and when doing her homework, as she finds it difficult to sit still and is easily distracted.*

Therapist explains: "I notice that she is more calm and more attentive when she is using the stool. For once, she sits properly on a chair; normally, she is extremely restless and sometimes even has to stop eating and leave the table as she is unable to remain seated. The footstool gives her the peace to finish what she is doing."

**Autism**

*8-year-old autistic boy.*

"I use it every day and I think I work better when I am using it. I feel more relaxed and I also remember to go and get it," (which is not something he would usually do – normally he would just do with the things around him).

*5-year-old girl with infantile autism.*

Specialist teacher explains: "We are training a five-year-old girl at home who has infantile autism, as well as such severe sensory disorders, that she is not able to go to kindergarten. She always wears Protac MyFit® outside, sits on a Protac Ball Cushion™, and she has now tried a Protac GroundMe® (the low model) with good effect."

**Concentration**

Teacher in a kindergarten: 'We have two boys in particular for whom Protac GroundMe® is hugely beneficial. They concentrate better, and can even fill a whole pegboard with beads now. We also use the footstool when we come together as a group, which

we always do on the floor. When they use the footstool to sit on, they manage to remain seated without running around, and they also participate more in what is happening."

**Motor and psychological unrest**

*10-year-old girl finds it hard to sit still, and has poor concentration and poor body awareness.*

"She finds the peace to engage in activities at the table when she is able to place her feet on Protac GroundMe®. Much of her physical restlessness has been moved down there, which helps her and is also far less disturbing for the children around her. She also remembers to take the footstool with her from chair to chair – which is not something she would normally do."

***"They concentrate better, and can even fill a whole pegboard with beads now"***

*Special focus on inclusion in a primary school.*

"Every child in the class has tried the Protac GroundMe® Puff. They have used it as a footrest under the desks – and they love it. It is incredibly popular to have and we often have to decide who sits with it and when. Luckily, they have a great ability to share with their friends. It provides the children with calm. It is clear to me that they have a better seating position when using it – more peaceful and it is more easy for them to concentrate."



# Protac GroundMe®

– provides a sense of grounding

## Concentration and learning

Protac GroundMe® is a dynamic footstool and cushion for children, adults and the elderly who, due to psychological and motor restlessness, find it difficult to sit still and concentrate for longer periods of time. The cushion stimulates the tactile and proprioceptive senses which contributes to calm, concentration and improved learning for the user. The cushion also ensures a more optimal sitting posture and helps restless feet. Protac GroundMe® works well with the Protac Ball Cushion™.

## Seated activities

At school and when seated, Protac GroundMe® acts as a stabilising cushion that supports the feet and a good sitting posture. Thanks to its sensory-stimulating effect, Protac GroundMe® also helps children who are restless when seated, either because they find it difficult to touch the floor or because they are constantly seeking sensory input through their feet. Adults and the elderly with restless legs can benefit from Protac GroundMe® when, for example, they are working, eating or relaxing on the sofa. Protac GroundMe® is also useful as a cushion for the floors or as a stool in kindergartens or schools.



## Recommended by professionals

Protac GroundMe® is used by therapists and professionals as a tool for motor training of children. The cushion can, for example, be placed on the floor as part of a treatment session for training and exercising the children's balance and coordination skills.

## Design and sizes

Protac GroundMe® has a foam base with loose plastic balls enclosed in an elastic cover on top. The practical straps on each side of the cushion make it easy to carry around and hang up on a hook when not in use. Protac GroundMe® is available in two sizes, 10 cm high and 20 cm high, to match the individual user.



## Protac GroundMe®

Increases grounding

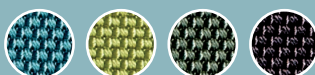
Calms restless feet

Promotes a good sitting posture

Promotes concentration

Supports learning

Available in four colours:



**ADHD**

*10-year-old boy diagnosed with ADHD. The boy is very disruptive in class as he is restless on his chair and makes a lot of noise. He now uses the Protac Ball Cushion™, which helps him to sit quietly for a longer period of time. He seems more focused and less noisy. The boy uses the ball cushion for all activities that require him to sit quietly and concentrate.*

*8-year-old boy.*

*"He now feels so much cleverer after he has been given the Protac Ball Cushion™ to sit on". "Mummy – it used to take me an hour to do four tasks, but now I can do six".*

**Poor concentration**

*4-year-old boy. Finds it hard to pay attention and concentrate when he has to sit and eat. This is a problem in kindergarten in relation to the other children, but also at home.*

*He tries to sit on the Protac Ball Cushion™, on his own chair, and it helps him to relax enough to stay seated. Another cushion is placed under his feet, which has the effect of making him even more attentive, calmer and able to follow what is happening around the table.*

***"He loves his cushion, and is only prepared to let go of it for short periods of time, only lending it to his friends. And the entire class is much more calm now that he is more balanced within himself"***

*6-year-old girl. Attends speech therapy. Has low muscle tone in her postural muscles. As a result, she finds it difficult to sit upright on a chair for any length of time, often collapsing and sliding down onto the floor.*

*The girl tries the Protac Ball Cushion™ and is now able to sit and concentrate throughout the 30 minutes of training without feeling tired or collapsing.*

*A girl at pre-school has difficulty concentrating and sitting still on a chair. She sits on her knees on the chair, lies across the table and twists and turns.*

*After trying the Protac Ball Cushion™, she was immediately much more calm. After a couple of days she was able to concentrate for a longer time – and is now sitting quietly on her chair. She is well aware that the cushion is good for her. When she arrives in the morning, she is usually the first to find her seat, and if she wants to play on the computer or sit somewhere else, she pulls her chair with her.*

**Hypotonia and hypermobile joints**

*8-year-old boy with low muscle tone in his postural muscles as well as hypermobile joints. Finds it hard to sit still and upright on a chair. The boy collapses and looks for support by resting on his desk. He is restless and sits in awkward positions.*

*The boy tries sitting on a Protac Ball Cushion™, and he changes immediately his posture and his ability to sit upright and quietly. The boy quickly becomes attached to his cushion. The school purchases one for the boy. He is also given a cushion to use at home during mealtimes and when he is doing his homework.*

*Two boys at a school for children with special needs. They are extremely hypermobile and restless.*

*The children's paediatric therapist placed the Protac Ball Cushion™ on the seats of the chairs as well as under the boys' feet, and it had a surprisingly positive effect on the boys' sitting position, their ability to sit still and their concentration. The school now uses the cushions in class, when the children are eating, as well as in activities where the children are expected to sit still and focus on what they are doing.*

**Motor and psychological unrest**

*Young boy suffers from extreme motor unrest. The occupational therapist suggests a Protac Ball Cushion™. The preschool class teacher is skeptical.*

*"I thought it would be a problem to get him to sit on the Protac Ball Cushion™. I thought he would not want to stand out by having a different seat in class. But it is quite the opposite – he loves his cushion, and is only prepared to let go of it for short periods of time, only lending it to his friends. And the entire class is much calmer now that he is more balanced within himself."*

**Balance problems**

*45-year-old woman with multiple sclerosis. Receives treatment because of the problems she is facing with her balance and fine motor skills. Suffers from severe pain in the lower part of her back.*

*The woman tries sitting on a Protac Ball Cushion™ during the 20 minutes training session. She notices that the pain in her back eases, while the cushion also trains her balance because of the balls' flexibility.*

# Protac Ball Cushion™

– stimulates and encourages a good sitting posture



## Concentration and learning

The Protac Ball Cushion™ is similar to an ordinary cushion. It can be used on most chairs and ensures a dynamic sitting posture. The cushion is suitable for both children and adults who find it hard to sit still and concentrate while working.

The Protac Ball Cushion™ is secured to the seat of a chair. When the user is sat on the cushion and moves, the balls roll lightly. The body will automatically shift its weight to maintain balance, which stimulates the back and abdominal muscles, which in turn prompts the user to correct their posture.

## School and seated activities

The Protac Ball Cushion™ provides a helping hand for restless children. It is easy to fit, takes up little space in a child's school bag, and can accompany the child during the daily activities. Hyperactive children, and children with weak muscle tone, benefit from the cushion's dynamic and continual stimulation; this encourages a good and varied sitting posture while promoting concentration and learning.

For younger children it is possible to combine The Protac Ball Cushion™ with the footstool, Protac GroundMe® which provides good support under the feet, and a good sitting posture. Adults who experience physical unrest, may also benefit from the cushion, at home as well as at work.

## Recommended by professionals

Professionals have had positive experiences with the Protac Ball Cushion™ when teaching children and adults how to train their balance skills. The dynamic sitting position means that users are constantly training their seated balance while stabilising the muscles around their stomach and upper and lower back. The pressure of the balls means that users are more aware of their sitting bones. This tones up the postural muscles and provides a better sitting position, which relieves the back.

## Design and models

The Protac Ball Cushion™ is available in a variety of models. The cushions are designed to fit school chairs and ordinary chairs without upholstery, height-adjustable school chairs, high chairs, kindergarten chairs and stools. To achieve the best effect of the cushion, the chair must not be upholstered. For school chairs/ordinary chairs without upholstery, a model with four sub-compartments is available, which limits the movement of the balls and helps users with an overactive sensory system.

The Protac Ball Cushion™ is available with two sizes of plastic balls, 38 mm or 25 mm. The 38 mm balls provide the biggest pressure and therefore a strong point stimulation. The 25 mm balls provide a soft pressure which is beneficial if the user is thin or particularly sensitive.



## Protac Ball Cushion™

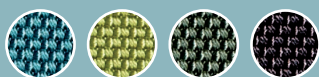
Relieves restlessness

Strengthens balance and sensibility

Trains the back and abdominal muscles and promotes a good sitting posture

Promotes concentration and learning

Most cushions are available in four colours:



### Children with special needs

*9-year-old boy with autism.*

Uses Protac SensCircle® during every school break. The boy chooses spontaneously to use the cushion as a chair during breaks and he uses it for more than an hour. The multi-cushion gives the boy psychological and mental peace. He enjoys it so much that he does not want to let go of it.

*Children and adolescents from the age of 8-17 with autism.*

The cushion is used in communal areas and television-rooms. Several of the children need to receive sensory stimulation and are able to find peace when using the cushion during seated activities, such as using an Ipad. The children remain engaged in what they are doing and Protac SensCircle® is used many times during the day.

*13-year-old boy with learning difficulty and epilepsy.*

Uses the multi-cushion during naps. He takes his naps in a communal room where he lies on a bean bag. Now that he has Protac SensCircle® around him, he does not need anything in his hands to calm him. His teachers explain that his motor unrest has diminished significantly.

**”It provides  
him with mental  
rest and he quickly  
falls asleep”**

### Learning disabilities

*25-year old with learning disability.*

He uses the Protac SensCircle® as a crib bunker and when he lies against it, it helps him to stay awake and active

*61-year-old man with learning disability and tactile defensiveness.*

Uses the Protac SensCircle® for positioning during the night. It provides him with psychological and mental rest and he quickly falls asleep.

### Dementia

*70-year-old resident with Alzheimer's related difficulties.*

The man is restless in bed – does not like positioning cushions and packs, but has achieved a sense of calm and fallen asleep in the evenings by lying against the Protac SensCircle®. The cushion has 50 mm plastic balls in the middle section of the cushion. He is more calm in the mornings, more easy to wash and is not angry when he wakes up.

### Neurology

*26-year-old with head injury. Suffers from motor unrest, poor sleep and lack of body awareness.*

The multi-cushion is placed around the head to create a boundary of the space around the patients head. It is used daily for about one hour during all naps, also during the night. This decreases the motor unrest and the patient has a stronger sense of security when the space around her is enclosed.

*52-year-old with damage on the brainstem level. Finds it necessary to relax when he is resting, and to feel the boundary of his body. Is paralysed in both arms and legs and suffers from reduced sensibility.*

He uses Protac SensCircle® a number of times during the day when he is resting. Protac SensCircle® gives him immediate mental calm. Similarly, he falls asleep immediately and has after few days experienced less spasticity. It is his experience that it feels comfortable to be enclosed around head and back, and staff have noticed that he is more focused after having rested when he has used Protac SensCircle®.

### Snorezen therapy

*50-year-old man with PTSD and suffers from arthritis.*

The man is rarely calm during the day and therefore enjoys the Snorezen house where he wraps himself in the long Protac SensCircle® while lying on the waterbed surrounded by music. In this position he is fully relaxed and recharges his energy.

### Return to work assessments

*53-year-old woman. Has suffered six strokes in the brain.*

The woman uses the Protac SensCircle® as a chair for rest. After two minutes she fell asleep and slept for 12 minutes. Following her sleep she expressed how the chair had contributed to inner calm and the experience of a restful and effective power nap.

*20-year-old woman. Suffers from motor and psychological unrest, especially in her back.*

Has just started at the centre and finds it difficult to fit in. When trying the Protac SensCircle®, she afterwards starts smiling and proactively engages with people around her.

# Protac SensCircle®

– emphasizing the boundaries of the body while creating enclosure

## Relaxation and rest

Protac SensCircle® is a multi-cushion. It has a flexible design and can be used as a back rest and as a tool to create a stronger sense of security. Protac SensCircle® can be used for all ages. It is recommended for activities, rest, positioning and enveloping. The length of the cushion makes it possible to wrap it around the body and create a sense of protection from the surroundings. The multi-cushion is also suited to reduce conflict as its calming sensory stimulation reduce unrest, anxiety and stress.

## Flexible positioning

Protac SensCircle® can be bent, folded and wrapped around the user. It is possible to lie on top of it and along side of it; fold it as a chair or a play dungeon, and use it as a back rest for a bed. The multi-cushion has a comfortable and soft cover, which feels pleasant for the head to rest on. Protac SensCircle® is also well suited for positioning in relation to neurological illnesses and dementia etc.

## Suitable for all ages

Therapists and other professionals have positive experiences using Protac SensCircle® as a helping aid for people with motor difficulties or spasticity. The multi-cushion is used by children and adolescents in schools for children with special needs for relaxation; it is used by elderly for positioning and for Snoezelen by adults with neurological and psychological difficulties.

## Design and function

The filling in Protac SensCircle® is placed in detachable sections. The middle section is filled with 50 mm sensory stimulating plastic balls, which through their weight and pressure, send calming stimuli to the brain. The outer section are filled with polystyrene granulate which are ideal for positioning and are soft and warm. The sections can be taken out or replaced according to the user's need for sensory stimulation. The cover is washable and produced in Oeko-tex certified and flame retardant fabric.



## Protac SensCircle®

Highlights the body's boundaries

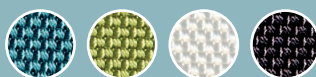
Reduces unrest and anxiety

Enables flexible positioning

Relaxing and restores energy

Grounds and de-esclates conflicts

Available in four colours:



### Deaf-blindness

*School for deaf and blind children. Young 17-year-old deaf and blind boy. Is wheelchair-bound and depends on help with everything except from small movements with his arm and leg.*

He enjoys coming out of his wheelchair and lying on Protac MyBaSe®. He receives both tactile and vestibular stimulation when he moves. He does not have to move very much for the mattress to give him input. When he lies on the mattress, he always lies on his active side so he can make it rock with his own movements. It is very clear to see that it gives him great joy to feel his own body when he is lying on the balls.

*28-year-old deaf-blind man. Can make out contrasts and can hear with the help of a hearing aid. He is in a wheelchair and very dependent on help. He reacts positively to touch and passive movement.*

"One day, when he was in a bad mood, complaining and making loud noises, we used the Protac MyBaSe® to give him input and a sense of his own body. After a short time he calmed down and became very aware of what was happening around him. When we began to rock the mattress, he reacted by smiling, he made appreciative noises. He relaxed and his mood improved significantly."

### Neurological disorders

*Nine-year-old girl with severe brain damage. Uses a wheelchair in her daily activities.*

Carers report that the girl shows clear signs of joy when asked if she wants to move onto the Protac MyBaSe® mattress. She is wheelchair-bound most of the time. When she lies on the mattress she can make it move by making small movements. She makes many happy sounds, chatters and smiles. She enjoys the relaxation and lying down without a corset.

### Psychological disorders

*Male resident with an early childhood injury and schizophrenia.* "He uses Protac MyBaSe® to find a base where he can relax. He has many obsessive thoughts throughout the day and poor posture. The mattress makes him calm enough to unwind and relax his muscles, and this effect lasts for some time after he has left the mattress."

### Snoezelen Therapy

*Occupational therapist:* "I use the stable side of the Protac MyBaSe® mattress, where the client can sink down into the balls and virtually float on the mattress. I generally use it along with a projector/film and peaceful music. One client immediately stopped chattering when she lay down on the mattress, which I see as a sign of feeling secure. I generally find that users relax completely."

### Occupational therapy for children

*Occupational therapist in private practice:* "The children love Protac MyBaSe®. They are very cooperative in posture and balance activities. You can use it in many ways to train the body perception that the children lack." 10-year-old boy: "It is like having a massage even though you are lying completely still." 8-year-old boy: "This mattress is the most fun and the nicest I have ever tried." 8-year-old girl: "It is soft in a way, even though it is hard."

***"The mattress makes him calm enough to unwind and relax his muscles, and it is great that this effect lasts for some time after he has left the mattress"***

### Learning disabilities

*9-year-old girl with severe learning disability. She is often agitated and grabs and bites anything within reach. She also frequently tests boundaries with her body – hitting her head, arms and legs against everything around her.*

After using Protac MyBaSe® each day for the past two weeks, carers have found her to be calm and more reachable, and she enjoys being herself and being able to sense her body. She bites less frequently and exhibits significantly less motor unrest during the day.

### Supported housing for adults

*Female with anxiety and brain damage.*

"When helping her to calm down, Protac MyBaSe® is the only place we can get her to relax and get into physical contact with herself, without constantly focusing on her anxiety."

# Protac MyBaSe®

– strengthens balance and body awareness

## Calming and creating a sense of security

Protac MyBaSe® is a specially designed air mattress with balls designed to promote sensory stimulation, and a sense of security for children, adults and elderly with sensory disorders. Protac MyBaSe® provides a secure base where the senses are stimulated whether the user is standing, walking, crawling, rolling or lying. Protac MyBaSe® has two sides: an active side and a stable side. The active side is used for e.g. balance training while the stable side is used for relaxation and resting.

## Applications in practice

Protac MyBaSe® is used in kindergartens, day care institutions, sensory rooms, Snoezelen Multi-Sensory Environments, treatment and therapy rooms, schools, supported housing, rehabilitation departments and activity centres.

## Alternative support for positioning

Protac MyBaSe® is a good alternative for wheelchair users, who need to change position during the day. The loose balls cause the body to sink slightly into the mattress, resulting in the body being supported, enveloped and stimulated. The deep pressure of the balls highlight the body's boundaries for greater body awareness and peace.

## Recommended by professionals

Protac MyBaSe® is used by therapists and professionals for sensory stimulation and sensory integration treatment. Protac MyBaSe® is also used for motor training as it challenges and trains the sense of balance when the user rolls, crawls or walks on the mattress. The mattress is easy to move around, and the two different sides make it possible to adapt treatment to the user's individual needs.

## Design

Protac MyBaSe® is quickly filled with air using the included air compressor. The balls in the mattress are distributed between four compartments, which together form a large ball bag which is contained by the elasticated cover. The cover has a zip, so it is easy to remove and wash in a regular washing machine. Protac MyBaSe® has four strap handles on each side of the mattress which can be zipped away. The handles facilitate moving and turning the mattress. When Protac MyBaSe® is not in use, it can be placed vertically up against a wall so that it does not take up floor space.

The incontinence cover can be used on Protac MyBaSe® to accommodate hygiene requirements or if a white mattress is required.



## Protac MyBaSe®

Supports and envelops the body

Reinforces body awareness

Unwinds and relaxes tense muscles

Trains balance and coordination

Functions as a secure base



### Alzheimer's disease

*62-year-old woman with Alzheimer's dementia, serious physical, mental and cognitive deterioration as well as depression. She experiences much discomfort due to physical and mental restlessness. Has found it increasingly difficult to handle sensory input and easily feels overstimulated. Her reaction is manifested in violent physical movements and a loud, angry voice. The woman spends a lot of time in her room now because she needs to be separated from other people.*

The woman finds it difficult to accept being handled and turned in bed when carers attend to her personal care. She has Protac KneedMe® placed over her knees straight after her morning care routine. She is given the choice of staying in bed or being transferred to an armchair, with the blanket, it makes her feel safe and secure. If she is restless from the early morning, she has the knee blanket placed over her and her morning care routine is delayed until she is calm and more amenable. The woman has a chair for Huntington's Chorea patients, which she uses with the knee blanket. Seated here, she is often smiling, relaxed and at ease. When carers enter the room, she often turns her head and greets them with a smile and pleasant chat. Mealtimes pass smoothly now that she has the knee blanket.

*Woman in her mid-80s diagnosed with Alzheimer's disease. Has a tendency towards verbal self-stimulating behaviour and is very persistent in her noises. She sings insistently and speaks loudly to herself. The woman has Protac KneedMe® over her knees straight after her morning care routine in an attempt to prevent the noises and self-stimulation from escalating. It was evident from the first trial that the knee blanket calms the woman down. Her voice is quieter and she responds to speech in a more responsive way. After using the knee blanket, her facial expressions are*

more gentle than usual. The woman now sits with it every day and ideally several times throughout the day.

***"It was already clear on the first occasion that the knee blanket had a good effect. She became more attentive and focused on the music"***

### Lewy Body

*Woman in her mid-70s with Lewy Body dementia. She is in a wheelchair and needs full help and support for all daily activities. She has Parkinson's-like jerky movements, fluctuating attentiveness and sometimes suffers from hallucinations. When she becomes psychologically upset, she sometimes shouts loudly with a sustained monotonous sound.*

The woman has used Protac KneedMe® for several months. The aim was to enable her to engage in social interaction and participate in musical activities. It was already clear on the first occasion that the knee blanket had a good effect. She became more attentive and focused on the music.

The monotonous sounds were replaced by occasionally humming. The knee blanket is now used in different ways, both preventively and to induce calm. The result is a reduction in psychological and motor unrest. It leads to improved well-being, her facial expression relaxes, she produces less self-stimulating noises and sometimes makes eye contact, smiles and says a few words.



# Protac KneedMe®

– promotes a sense of calm and security

## Calming and creates a sense of security

Protac KneedMe® is a knee blanket which can be placed over knees, thighs and abdomen and helps with motor and psychological unrest. The weight and touch-pressure of the knee blanket helps to clearly define the boundary of the body, leading to a sense of peace and security. For people with restless legs and feet, which often affects people suffering from hyperactivity or 'restless legs syndrome', the blanket can often help. For example, the knee blanket can be used in armchairs, in wheelchairs or for seated activities during the day. The back of the blanket is made of non-slip material which keeps it in place when placed on knees and thighs.

## Applications in practice

Protac KneedMe® is an integral part of everyday life in many nursing homes, psychiatric units, supported housing, rehabilitation units, activity centres, day care institutions, sensory rooms, Snoezelen Multi-Sensory Environments or in private homes. The knee blanket is particularly useful in relation to ADL-activities such as personal hygiene and eating situations when the user is feeling insecure.

## Recommended by professionals

Protac KneedMe® is used by therapists and professionals when providing therapy and motor training for patients and clients who find it difficult to work and cooperate with others, stay

focused and concentrate. Protac KneedMe® has, for example, proved beneficial in connection with cognitive training, speech therapy, hand therapy, personal care, ADL training or treatment according to the principles of Affolter and Bobath (ABC concept).

## Design

Protac KneedMe® consists of a removable outer cover and a bag with heavy plastic balls sewn into channels. There is a large pocket on the top side of Protac KneedMe® which can be used to activate hands searching for sensory stimulation. The pocket has a strap which can be used for attaching tactile items such as keys. The outer cover of Protac KneedMe® can be washed separately.



## Protac KneedMe®

Improves proprioception

Promotes calm and a sense of security

Increases focus and concentration

Promotes cooperation and the ability to work with others

Available in three colours:



**Occupational therapy for children**

*11-year-old girl and her parents experienced a a more pleasant atmosphere in the car after learning about the knee blanket Protac KneedMe® To Go.*

Some children find it difficult to get a sense of inner peace. For those children, it is a determining factor for their well-being, that they find something which can provide calm. For this girl it was particularly difficult to relax during drives in the car. The 11-year-old girl found just the help she needed, when she was presented with the knee blanket. Having tried the knee blanket just once, it was clear that her body was more calm. When the body is calm, the thoughts and emotions likewise calm down. It was not only the girl who benefitted from the newly found peace – the atmosphere in the car was more relaxed and enjoyable. The family do not go anywhere without the knee blanket.

***”He has used a Protac KneedMe® To Go every morning after arriving at school. It helps him to relax. He feels secure under the knee blanket and it helps him to focus on his activities at school”***

**Concentration difficulties**

*9-year-old boy who finds it difficult to attend school.*

He finds it challenging to do single activities. He is not comfortable at home as his ‘batteries’ have run out when he is back from school. A sensory profile of the student shows that he is tactile defensive to a medium degree and he has a poor sense of sensory input from his own body, as well as his surroundings. When he is stressed at home, he often finds his knee blanket and sits underneath it as a screen from light and sounds. He stays in the bedroom where there is no noise. At home he is able to find self-regulating strategies, but he finds it hard to do the same at school. He has used a Protac KneedMe® To Go every morning after arriving at school. It helps him to relax. He feels secure under the knee blanket and it helps him to focus on his activities at school. It is important that his parents and his teacher adapt his assignments so that he is not overwhelmed. We experience that the knee blanket, in combination with correct information helps the student to relax.

**ADHD and Down’s syndrome**

*10-year-old boy with huge difficulties in being seated during school activities and during meals and a strong urge to constantly run away or throw with objects. The boy found peace of mind with the knee blanket. He likes to fiddle with toys in the blanket and it helps him to stay seated and maintain focus during classes.*

**Motor and psychological unrest**

*12-year-old boy who has previously used the Protac MyFit® vest to provide fundamental calm when he finds it difficult to take part in activities during a lesson at school. He also uses it when he is eating, although not in the same room as the other children.*

Protac KneedMe® To Go, in combination with the vest, has given the boy just the relaxation he needs to be able to stay seated at the dining table at home and at school. Previously, he often had to get up when he felt restless, and often did not finish eating. The boy is generally happier and has more energy to stay with his friends. He is better at handling the variety of assignments given to him and the options that staff give him when he is feeling anxious and restless.

**Alzheimer’s disease**

*73-year-old woman with Alzheimer’s dementia, experiences motor and psychological unrest and wanders restlessly around.*

She has an extensive need for one-to-one contact during every activity. She is increasingly restless during meal times, when she is not able to relax. She is often agitated showing externalising behaviour at the start of the meal and cannot therefore relax enough to be able to finish the meal. She often eats whilst standing up, or the meal is interrupted and she does not get sufficient nutrition. Protac KneedMe® To Go is used several times a day before meal times and following 10-15 minutes, she is guided in a relaxed environment. When the knee blanket is placed on her lap she is more attentive and cooperative when eating. Staff have noticed that she has felt more calm and happy after having used the knee blanket and has been able to relax seated and on her own without one-to-one contact.

***”The pockets are wonderful – they keep the hands calm”***

***”It is great for everything”***

# Protac KneedMe® To Go

– portable knee blanket in a functional design

## Innovative and functional design

Protac KneedMe® To Go is a unique and innovative product in our range of knee blankets. The new Protac KneedMe® To Go is developed in an innovative and functional design, which makes it a discrete helping aid. It is easy to fold up the blanket, which then becomes a stylish shoulder bag. The back of the cushion is made of non-slip material which keeps it in place when placed on knees and thighs. Pockets on the front of the cushion provide storage for tablet, mobile phone or other smaller items. The pockets also serve as sensory input through the plastic balls for restless hands, which need sensory stimulation.

## Calm and security

Protac KneedMe® To Go was originally developed to help children and adolescents with motor unrest and concentration difficulties, but it can also be used for elderly with a need for less weight and a smaller size blanket. The ball's weight and deep pressure gives the body sensory stimulation. The clear boundary contributes to a greater awareness of the body and increases the ability to concentrate. The wealth of sensory impressions creates a calming and relaxing effect, which in turn makes the user feel at peace and more focused.



## Applications in practice

Protac KneedMe® To Go is an easy and practical knee blanket to use during seated activities throughout the day. The knee blanket can be turned into a stylish shoulder bag which is easy to transport to daily activities outside, or at home.

**REDUCES  
UNREST & HYPER-  
ACTIVITY**



## Protac KneedMe® To Go

Reduces unrest and hyper-activity

- In school
- At the movies
- In the couch
- At the desk
- At the dining table

Available in three colours:



### Alzheimer's disease

*78-year-old woman*, very agitated, often wanders around the hallways. She is not able to settle down and sit still. She is very fond of old Danish movies and she can be guided to watch a movie, but gets up after a short while and continues to wander around. She tried the collar, which she found both pleasant and comfortable to wear. The staff sat beside her for the first five minutes, and afterwards she remained seated for an hour and watched the movie alone.

### Brain damage

*A 7-year-old boy* with congenital brain damage – and many of involuntary movements and difficulties in concentrating. The boy tried the collar while doing some maths exercises, and his regular teacher noticed that there was a rapid and pronounced change, and that the boy sat unusually still. "I can see it in his eyes, because they are not wandering. He is focused on his maths exercises and not on the other pupils in the class, which is normally a big problem". When taking off the collar, the boy said "Could you please come back with the collar?"

### Traumatic head injury

*30-year-old man* with a major traumatic brain injury. He tried the collar while eating. The staff observed that he became more tranquil when he used the collar. It had a calming effect on his static tremor and tendency to be verbally repetitive.

***"I can see it in his eyes, because they are not wandering. He is focused on his maths exercises and not on the other pupils in the class, which is normally a big problem".***

***When taking off the collar, the boy said "Could you please come back with the collar?"***

### Neurology

*52-year-old woman* with neurological damage, resulting in severe cognitive difficulties. She has tried the collar during social gatherings in the coffee room at her care facility. The staff observed that she was more calm and that it improved her ability to socialize. She said several times that she thought the collar was nice-looking and comfortable to wear.



**New  
Product**

# Protac SensOn®

– a collar to calm you down

Protac SensOn® is a collar helping you to relax - fitting naturally on your neck, shoulders and chest. The weight and the sensory stimulation provided by the small balls lowers the shoulders and relaxes the neck. The effect can be compared to a pair of calming, firm hands placed on your shoulders. The collar is discrete to use, can ease anxiety and provide improved body awareness. It promotes well-being, peace of mind and can improve concentration and learning capacity.

## Peace of mind for people of all ages

Protac SensOn® is a sensory stimulation aid developed for children, teenagers, adults and elderly people suffering from e.g. physical and psychological restlessness, sensory difficulties, difficulties with concentration and learning difficulties, dementia, stress, brain damage, ADHD, autism and other psychiatric diagnoses.

## Use it in the everyday life

Protac SensOn® can be used in institutions, care homes, schools, hospitals and private homes. It can be used when teaching, at work, while doing homework, while eating or when relaxing on the sofa.



Three  
colours

## Design and sizes

Protac SensOn® has a comfortable design and is made in a soft material. It is available in three different sizes and colours. The collar is also suitable for wheelchair users as the lower ball bags can be removed which makes the collar nice to wear against a backrest.



## Protac SensOn®

Sensory stimulation of the neck, shoulders and chest

Promotes peace of mind

Easy and discrete to use

Increased well-being and concentration

Available in three colours:



## Protac A/S

Protac is an innovative and socially responsible company, established in 1994. The founding idea of the company is based on theories of sensory integration. These theories focus on the different senses of the body and how these can be positively influenced. The products include plastic balls, which affect the tactile and proprioceptive senses through weight and deep touch pressure to improve body awareness and increase general well-being.

## Research and evidence

Protac continuously encourages to do research and communicate new knowledge about sensory stimulation and the use of the Protac products. As a result, The University of Southern Denmark published in 2011 a research project documenting the positive effects of the Protac Ball Blanket™ when used by children with ADHD.

In 2018, another research project documented that systematic use of sensory integration reduces the need for restraints in psychiatric units.

To support research even further, Protac has employed two PhD-students to do research in the effect of the Protac MyFit® ball vest for unrestful school children and the Protac Ball Blanket™ for psychiatric patients suffering from insomnia and depression.

## Innovation and product development

The product from Protac are developed in collaboration with health professionals including occupational- and physiotherapists. The products are thoroughly tested by users, and the design is always based on their needs. Protac follows a structured innovation process, which incorporates the most recent research about sensory integration. The products are CE-certified and distinguished by a high quality and a user friendly and modern design developed in collaboration with a professional designer. Protac conducts regular inspections of all suppliers to ensure that they always meet the quality and environmental standards of Protac. Most of Protac products are patented.

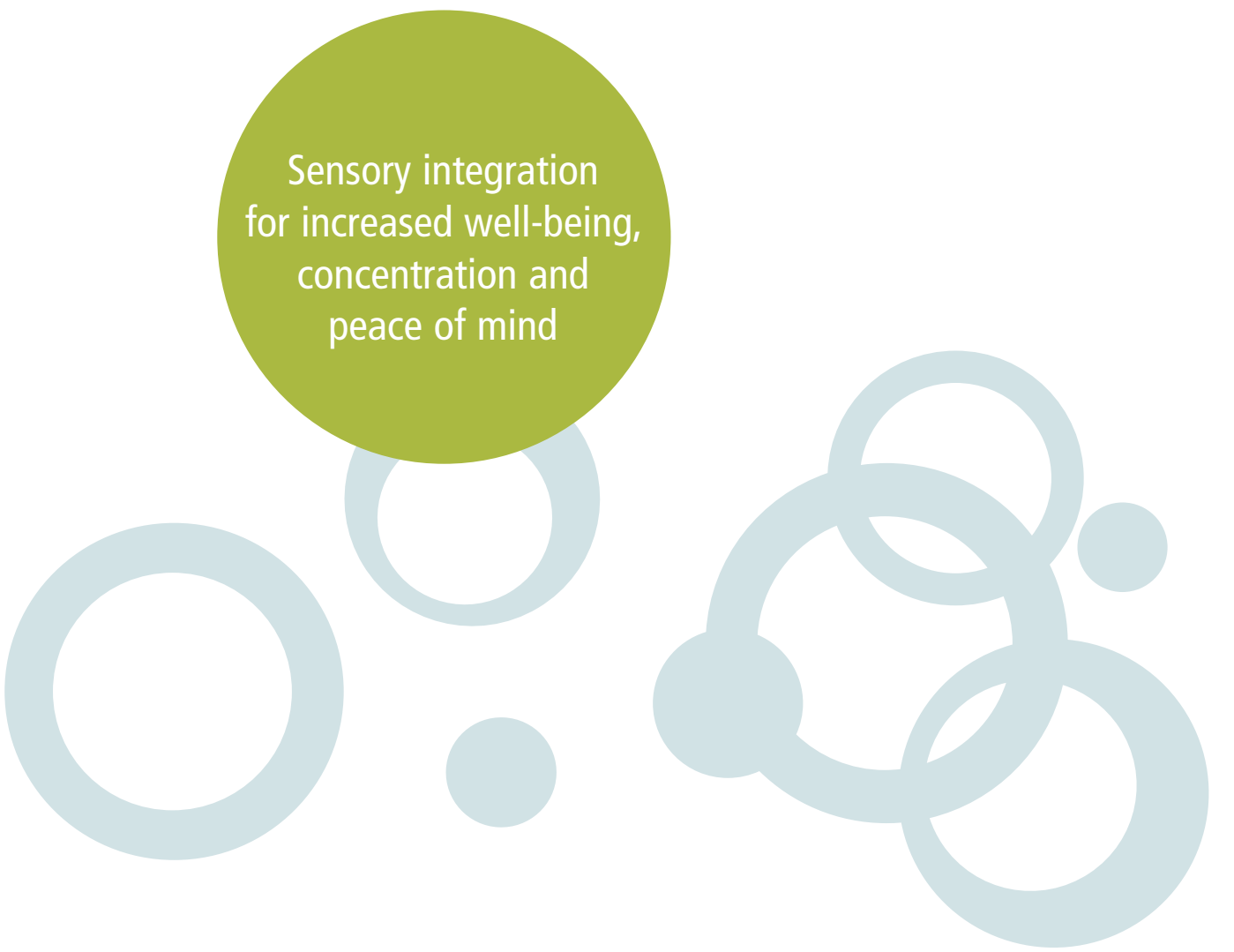
## Professionalism and advice

Protac provides professional advice. Our sales consultants all have a background in occupational- or physiotherapy, and receive regular training through courses and conferences. Protac's administrative staff also receive regular training in sensory integration theories.

## International profile

Protac has committed distributors in many countries – such as Norway, Sweden, Finland, Iceland, Greenland, France, Germany, Austria, Switzerland, Holland, Belgium, Luxembourg, England, Faroe Islands, Italy, Spain, Australia, New Zealand and Japan.

You can  
find cases, and more  
information at [protac.dk](http://protac.dk).  
Here, you also find inspiring  
vidoes on Protac and an  
explaining video on  
sensory integration.

An abstract graphic featuring a solid olive-green circle in the upper left containing text. Below and to the right of this circle are several light blue geometric shapes: a large ring, a medium ring, a small solid circle, and a complex arrangement of overlapping rings and solid circles on the right side.

Sensory integration  
for increased well-being,  
concentration and  
peace of mind



**PROTAC<sup>®</sup>**  
INTEGRATING SENSES

**PROTAC A/S**

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