



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

Sensory  
Stimulation  
Products





Repose are proud to present the unique Protac range of Sensory Stimulation Products, including specialist seating, to support healthcare professionals who are involved with people who suffer from motor restlessness and sensory impairments.

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# Sensory Integration

Sensory Integration is the neurological process that organises sensation from one's own body and the environment. It sorts, orders and eventually puts all the sensory inputs together to create what it thinks is the appropriate response. What emerges from this process is increasingly complex behaviour, the adaptive response and occupational engagement. Quite simply it enables people to live everyday life.

For some people, sensory integration does not develop as efficiently as it should which means their nervous systems may have difficulty taking in, interpreting and making use of sensory information. This changes how the person then responds to changes in their own body, the environment and how they interact with it and others around them.

## Protac® Balls – The Effect

The balls in all of Protac's products act on the skin by subjecting it to a light pressure distributed across numerous points, helping the brain to register the body to a far greater extent than through uniform contact because the balls move through slight changes in position.

The skin is thus continuously stimulated in new ways and 'updates' the brain about the body and the surrounding environment.

This leads to improved sensory integration which can have a significant calming effect on the individual whilst stimulating one's body sense.

**All of the products in the Protac range have been carefully designed by health experts to maximise the impact that the Protac balls have on sensory stimulation.**

# What our Expert says

The Protac products contain the unique Protac balls, which provide a deep touch pressure and constant contact with the body to provide tactile sensory input for both adults and children of all ages. Sensory stimulation helps relieve restlessness in the body and head.



*Kate Sheehan*

Kate Sheehan  
Independent Occupational Therapist

## Medical conditions

These unique sensory integration products have been used by people with many physical disabilities and sensory impairments and have gained international usage in many environments including care homes, hospitals, hospices, charities, schools and special schools, psychiatric departments, waiting rooms, sensory rooms, treatment and therapy rooms, as well as in people's homes.

They have been used across a wide range of health conditions including ADHD, Anxiety, Autism, Mental Health and Neurological Disorders, Development Disorders, Multiple Sclerosis, Parkinson's, Sensory Disturbances and Sleep Disorders. Two key factors contributing to their success are:

## The sense of touch

Touch is crucial in our ability to make sense of the environment. Touching the skin sends stimuli to the brain and gives us a sense of the body's boundaries. The skin thus serves as a boundary, helping us to distinguish between what is 'me' and what is outside 'me'. The sense of touch helps us to establish a sense of our own body and helps the brain to keep us up to date with our body and body movement.

This updating of our body only happens if the input varies over time. If the input is uniform and lasting the sensory impression simply fades. To maintain a sense of your body, the pressure has to vary.



The weighted Protac balls give a light pressure distributed across numerous points, helping the brain to register the body to a far greater extent than through uniform pressure. The balls will move through slight changes in position and the skin is continuously stimulated in new ways and updates the brain about the body and the surrounding environment.

## The sense of movement

Another important sense is the sense of body position and movement, also known as the proprioceptive sense or the muscle-joint sense. This sense has receptor organs in the joints and muscles. The muscle-joint sense calm the nervous system and we often use our sense of movement to create calm.

When the weight of the balls in Protac's products offers resistance to the body's joints and muscles, a message is sent to the nervous system, which the brain registers as movement. This is why the weighted balls have a calming effect.

The enhanced awareness of the body and its physical delimitation provide a sense of security and calm in the head and body. This is why many people experience that the products relieve stress and anxiety while promoting concentration, focus and learning.

**For more details on the medical conditions that Protac is being used for see page 26 of this brochure or visit [www.reposefurniture.co.uk](http://www.reposefurniture.co.uk) - Sensory Solutions.**



# Protac SenSit® Chair

Protac SenSit is a very comfortable sensory-stimulating chair that provides a sense of security and calm and increased levels of concentration among users. Adults, the elderly and children suffering from mental and physical restlessness can benefit from the chair.

The chair is suitable for people less than 180 cm (5' 11") tall, is available in 8 colours and comes with washable covers. It also has carrying handles and an optional Protac Ball Pouffe can be purchased.

## How it works

The Protac balls are featured in the side wings, neck wings, back cushion and seat cushion. The neck cushion is granulated. They are built into the lining of the product and the balls are held in individual specially constructed ball bags.

The chair envelops and calms through the balls which, thanks to the deep touch pressure and constant contact to the body's surface which they provide, activate the sense of touch and sense of body position and movement.

Both the side and neck wings can be placed over the user so they can feel the weight and pressure of the balls which will lead to a better sense of the body's boundaries and body awareness, increasing sensory stimuli. These wing cushions can be adjusted for postural comfort. Alternatively, they can be positioned so that they are not on the person.



## Suitable for

The chair has many applications, and can be found in care homes, hospitals, hospices, special schools, psychiatric departments, waiting rooms, sensory rooms, treatment and therapy rooms as well as in people's homes. Some examples of the type of usage are:

- In psychiatric departments and day care facilities for adults with developmental disorders providing a 'safe refuge' in communal areas for patients who find it difficult to be with lots of people.
- In pre-school and school environments as a time-out for children or with restless children, as the chair helps them to concentrate for their study.
- For many health conditions including ADHD, Autism, Anxiety, Dementia, Huntington's, MS, Parkinson's and Tourette's Syndrome.





### **Protac Pouffe**

In addition to the chair you have the option to purchase a pouffe footstool which complements the chair or it can be used separately as a cushioned seat. The balls in the upper of the footstool stimulate the senses, whilst being very comfortable to sit on.

# Protac SenSit® High Back

The Protac SenSit® High Back is a sensory-stimulating chair designed with a straight high back which offers an alternative to the Protac Sensit. Whilst targeting a similar end user group it is for those people who are taller than 180 cm (5' 11") as it has a higher back and for elderly people who have problems standing from a lower seated position.

## How it works

The Protac balls are featured in the side wings, neck wings, back cushion and seat cushion. The neck cushion is granulated. They are built into the lining of the product and the balls are held in individual specially constructed ball bags.

The chair envelops and calms through the balls which, thanks to the deep touch pressure and constant contact to the body's surface which they provide, activate the sense of touch and sense of body position and movement.

The chair is a very comfortable sensory-stimulating chair that provides a sense of security and calm and increased levels of concentration among users. Adults and children suffering from mental and physical restlessness can benefit from the chair.

The chair is available in 8 colours, the covers are washable and it comes with carrying handles. It has a reversible seat cushion with a choice of using the Protac Balls or a firm foam seat cushion. An optional Protac Ball Pouffe can be purchased.



## Suitable for

The chair has many applications, and can be found in care homes, hospitals, hospices, special schools, psychiatric departments, waiting rooms, sensory rooms, treatment and therapy rooms as well as in people's homes. Some examples of the type of usage are:

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# Protac Ball Cushion™

The Protac Ball Seat Cushion, for children of all ages and adults, is filled with plastic balls that helps to improve body awareness, alleviates uneasiness and hyperactivity and promotes concentration and learning. It can also help with balance problems and low muscle tone as well as providing for a better, more dynamic posture.

Available as a single or quadruple cushion design they come in 5 colours. The cushions, in 100% polyester, are washable.



They are suitable for different types of chair including classroom and shell chairs. They are simple to connect by using the tie's at each corner of the cushion.



## How it works

As a person moves around in the seat, the balls inside the cushion will also move a bit, bringing the body's centre of gravity beyond its base of support. In order to regain your balance, you have to automatically shift your position and sit up straight.

Shifting positions trains the muscles around the abdomen, back and lumbar area; this increases muscle tone and straightens your posture which relieves the pressure on your spine. For a child with a very restless body, the cushion can effectively absorb this restlessness since they will be moving on the cushion constantly.

The continuous stimulation from the balls provides the user with a more distinct awareness of the body and a greater sense of calm. This makes it easier to focus and concentrate on new tasks and input.



## Suitable for

These cushions are being widely used by adults and children across a range of health conditions and in many different environments such as, schools, care homes, hospices and hospitals. Some examples of the type of usage are:

- Sufferers of ADHD and autism can use the ball cushion to sit on in school or the home when unconcentrated. When the user moves on the cushion, the pressure of the balls stimulates muscles and joints, helping improve body posture, calmness and concentration.
- Psychiatric patients who often suffer from muscular and psychological unrest. The cushion can be used to enhance concentration and help calm the patient.
- Sufferers of a range of development and sensory problems, to create enhanced sensory stimuli in the body. It is used for sufferers of stress to provide calmness, comfort and better body awareness.

The cushion is often used in conjunction with the Protac vests (MyFit), knee blankets (KneedMe) and footstools (GroundMe) as an overall sensory stimuli solution. The seat cushion has even been used by some people as a foot rest.

## Sizes

The cushions come in one size, 40cm (16") square, and have the option of different sized Protac balls, 25mm or 38mm, depending on individual requirements. The product has an approximate weight of 4kg.

# Protac GroundMe®

Protac GroundMe is a dynamic footstool and cushion for children of all ages and adults who, due to mental and motor restlessness, find it difficult to sit still and concentrate for longer periods of time. This sense-stimulating foot cushion eases restless legs syndrome, hyperactivity and difficulty in concentrating.



Available in 5 colours, the cushions are washable. GroundMe comes with carrying handles and a storage bag to maintain its integrity when not in use.

## How it works

GroundMe has a foam base and sits sturdily on all surfaces. The upper layer is a pocket of loose Protac balls beneath an elastic top cover. It stimulates the sense of touch and the muscle-joint sense, and contributes to calm and concentration, as well as improved learning for any user in an educational setting.

It stabilises the feet and improves posture when used as a footrest. The Protac balls inside the top layer of the cushion stimulate the feet, providing relief for restless legs. The foot cushion can be used when working, eating or relaxing.

As a floor cushion for young children the pressure and movement of the balls promotes calmness and focus. Therapists and specialists use the foot cushion as an aid for motor skill training. For example, it can be used as part of a motor skills obstacle course that challenges and trains balance and coordination.



## Suitable for

These cushions are being widely used across a range of health conditions and in many different environments such as, schools, care homes, hospices and hospitals. Some examples of the type of usage are:

- Children and adults to alleviate balance problems, learning disabilities and physical unrest.
- Those suffering with ADHD and autism helping with relaxation and concentration. Children with ADHD and autism in particular benefit from using the cushion to reach the ground with their feet when sitting on a chair, creating calm in the body to allow them to concentrate on school work.
- Sufferers of a range of development problems and sensory problems to create enhanced sensory stimuli in the body.
- Elderly sufferers of restless legs syndrome. The movement of the feet over the balls gives multiple sensory stimulation, providing more feeling in the feet.



## Sizes

There are two sizes of cushion 20cm and 10cm heights. The 20cm cushion is the best one to be used as a floor seating cushion.



# Protac KneedMe®

KneedMe is a sense-stimulating knee blanket for those with physical and mental unrest who need help alleviating uneasiness in the mind and body while engaged in seated activities. The knee blanket can be used in armchairs, in wheelchairs or for any seated activities during the day.



The knee blanket promotes peace and a sense of security for young people, adults and the elderly suffering from mental and motor restlessness.

It comes in 3 colours and is washable. When the blanket is not being used, it can be stored in the carrying case.



## How it works

KneedMe stimulates the sense of touch as well as the muscle and joint position senses. It rests on the lap, covering the knees and thighs and promoting calmness, focus and concentration for the user. It is well-suited for those with dementia, hyperactivity, physical unrest, Parkinson's disease and restless legs syndrome.

It consists of a blanket with a removable outer cover and a bag with heavy plastic balls sewn in channels. It has two pockets for the user to place their hands in. On the reverse side of the blanket there is a non-slip grip sheet to preventing it from falling off the knee. It is also fitted with a belt with two straps which can be attached around the user's waist to also prevent the blanket from sliding off their lap.





## Suitable for

These cushions are being widely used across a range of health conditions and have become an integral part of daily life in many nursing homes, residential and care homes, hospital rehabilitation departments, day care institutions, sensory rooms and in people's homes. Some examples of the type of usage are:

- For people with restless legs and feet, which often affects people suffering from hyperactivity or 'restless legs syndrome', the blanket can often help to calm them down.
- It is used by therapists and professionals when providing therapy and motor training for patients and clients who find it difficult to cooperate, stay focused and concentrate. It has proved beneficial in connection with cognitive training, speech therapy, hand therapy, personal care, ADL training or treatment according to the principles of Affolter, Bobath and Coombes (ABC concept).

## Sizes

There are two sizes available, one for adults and one for children.



# Protac Myfit®

A sense stimulating vest for young people and adults of all ages with mental and physical unrest who need help staying calm, concentrating and learning. It is used for sufferers of a range of development and sensory problems to create enhanced sensory stimuli in the body, thus improving body awareness to create a calming effect.



It helps:

- To promote better concentration and calmness at home, school and in the workplace.
- Those who are mentally and physically challenged to be able to better handle their everyday activities.
- Those with stress and anxiety providing a calming and comforting effect.
- To alleviate and quell aggressive or externalising behaviour.

## How it works

Protac MyFit stimulates the sense of touch as well as the muscle and joint position senses and is used on young people and adults who suffer from restlessness, anxiety, difficulty concentrating or poor body awareness. The vest fits snugly against the body and the comfortable amount of weight and pressure of the vest provides the user with a distinct awareness of the body which alleviates anxiety, hyperactivity and stress.

The vest can be used for as long as or as much as the user finds it comfortable to wear and its soothing effects will continue to last.



## Suitable for

The Protac MyFit® can be used in institutions, sheltered housing, day centres, hospitals, patient lounges and private homes. Some examples of the type of usage are:

- For young people and adults with hyperactivity and physical unrest as well as those with neurological disorders, sclerosis, Parkinson's disease and pain problems.
- For those suffering from ADHD and autism to help with concentration and learning difficulties, as the thickness of the balls give extra sensory stimuli and better body awareness
- The clients of therapists and specialists as an aid for sensory integration therapy and motor skill training for balance and coordination. The vest is also used in cognitive training, speech therapy and ADL training.
- Children and young people within a classroom environment to aid concentration and calmness.

## Sizes

There are a range of sizes and models according to chest size and stimulation needs, with the larger balls and heavier vest offering stronger stimulation. For our size chart please visit:

**[www.reposefurniture.co.uk](http://www.reposefurniture.co.uk)** – Sensory Solutions.



# Protac Ball Blanket™

The Protac Ball Blanket, suitable for adults and children, has been designed to offer the user a unique and individual sleeping experience by alleviating sleeping problems, mental and physical unrest, hyperactivity and lack of body awareness.

It is a recognised aid for helping to relieve sleep disorders and mental and motor restlessness among children, adults and the elderly. It is effective at relieving sleep problems of varying degrees.



Health professionals have been using these blankets for some years in all kinds of healthcare environments, but they are as ideally suited for schools and client homes.

There are two styles to choose from – the Calm blanket and the Flexible blanket.

## How they work

The blanket can be used as an ordinary duvet at night, or during the day when there is a need to calm the body and mind. Mental and motor restlessness makes it hard to relax and impacts how we sense our bodies. Through the balls' deep touch-pressure, weight and improved awareness of the body, they create calm, grounding and a sense of security, which ensures better and deeper sleep and more energy during the day.



The balls are loosely distributed inside the blanket cover and press deeply in certain spots. When the person moves about underneath the blanket, the amount of pressure they feel will change a bit, thus sending a different sensation to the brain. The variations in sensory impressions alleviate anxiety and feelings of insecurity, putting the mind and body at rest.

It reduces night-time awakenings and restless sleep, allowing the user to sleep more deeply and with fewer interruptions. Elements that are essential to a person's well-being and ability to learn.

## The Calm Blanket

The Calm model blanket has a channel construction, bearing weighted plastic balls in channels. The channels allow less movement of the balls and hence the sensory stimulation is milder and more soothing than in Flexible model (below). Calm is particularly suited for people, who are tactile defensive; sensitive to new and changing sensory impressions and in need of a clear body definition.



## The Flexible Blanket

The Flexible model blanket has four sections bearing weighted plastic balls in pockets. The sections are interchangeable and allow for customised blankets, suited to individual needs for sensory stimulation. Flexible is characterized by the movement of the plastic balls, which provides a changing sensory stimulation. Flexible is particularly suited for people, who need a lasting sensory impression to strengthen their body awareness and ease motor restlessness.



## Suitable for

These blankets are being used across a range of environments including care homes, hospitals, hospices, psychiatric departments, therapy rooms, schools and special schools, as well as in people's homes. Some examples of the type of usage are:

- Patients with brain damage resulting in spasticity. The weight and pressure of the balls help suppress spasticity, and calm the body of patients with brain damage. Furthermore, the patient benefits from enhanced body awareness.
- ADHD and autism sufferers to sleep with, and as a source of comfort during the daytime. The pressure and weight of the balls impart sensory stimuli which help define the body, giving comfort and calm. ADHD sufferers often have a problem winding down at night, and the blanket gives the body a signal to relax through its pressure and weight.
- Psychiatric patients who often suffer from muscular and psychological unrest. The blanket is used to create calm and comfort for the user. The weight and pressure of the balls also give a better feeling of body awareness and enhanced wellness. It can be used to sleep with, and to provide comfort during the daytime.
- Sufferers of a range of development and sensory problems and to create enhanced sensory stimuli in the body.

## Sizes

There are a range of sizes all with a 7Kg weight, but there are different ball configurations across these two models. There is also the choice of a flame-retardant cotton if required. For all the sizes please refer to [www.reposefurniture.co.uk](http://www.reposefurniture.co.uk) – Sensory Solutions.

# Case Studies / Testimonials

On the Repose web site, under each individual product, we have many case studies/testimonials covering different health conditions. Below we have provided a few examples as to how the products are being used:

## Sensit/High Sensit

### **A 20-year-old woman with mental health issues:**

The young woman has a history of attempted suicide and is now hospitalised in a psychiatric department. During her hospital stay she continues to present with suicidal ideation and active attempts to self-harm. Initially, this patient used the Sensit 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 better able to resist the urge to self-harm.

The chair is placed in her room so that she can use it as and when she needs to. It gives her a feeling of well being, physical relaxation and control.

### **A 13-year-old boy with ADHD:**

I can clearly see an improvement in all forms of contact and communication with the boy, and in his physical harmony, while he is engaging with occupational therapy in the chair, and afterwards. He spontaneously seeks out the chair, and he often pretends to have fallen asleep so he can stay in the chair when training is over. He is noticeably more tranquil and more cooperative, and is happier after having used the SenSit ball chair. And he often winks at me and says: "I'll take this chair home with me one day, when you're not looking."

## Ball Cushions

### **Two boys at the special school with extreme hypermobility:**

I teach these two boys who have extreme hypermobility as well as being very restless. The children's paediatric therapist placed the ball cushion on the seats of the chairs as well as under the boys' feet, and it had a surprisingly positive effect on their sitting position, their ability to sit still and their concentration. The school now use the cushions in class, when the children are eating as well as for activities where the children are expected to sit still and focus on what they are doing.

## GroundMe

### **An 8 year old boy with autism and related sensory disorder:**

"I use it every day and I think that I work better when I'm 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 make do with the things around him).

A specialist teacher says: "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 be in an institution. She always wears a ball vest outside, sits on a ball cushion, and she has now tried a GroundMe (the low model) with good effect."



# Case Studies (continued)

## KneedMe

### **Lady in her mid-80s diagnosed with Alzheimer's:**

The lady presents with verbal self-stimulating behaviour which can continue for long periods of time. The lady has the KneedMe blanket put on her straight after her morning care routine in an attempt to promote reduced anxiety, agitation and engagement in meaningful activity.

It was evident from the first trial that the knee blanket induces calm. Her speech is more socially engaging and she communicates more responsively. After using the knee blanket, her facial expressions indicate less anxiety and a significantly more relaxed demeanour. The lady now sits with the KneedMe every day, and ideally several times throughout the day.

## MyFit

### **A 73-year-old man with Parkinson's disease:**

"I use the vest 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 greater inner calm during these activities, and of being better able to master them. It gives me a sense of security, grounding, deeper relaxed breathing and a more upright posture."

## Ball Blankets

### **An elderly man with dementia:**

He has become increasingly anxious over the last year, leading to more aggressive behaviour. The man resists support with transfers, bathing or general care needs. Staff are concerned that they are unable to support with transfers and bathing due to challenging behaviour within the parameters of their risk assessment. He is given a ball blanket™ and immediately enjoys it.

He objects when the night nurse tries to replace it with his normal duvet in the early hours of the morning, so he is allowed to sleep through the night with the blanket. After two or three weeks, the staff comment that he has become a completely different person. Transfers and bathing no longer give rise to aggressive or challenging behaviour. He has started to sing and take a look at 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.







# Medical Conditions

The Protac® Sensory product range, including specialist seating, have supported healthcare professionals who are involved with the elderly, adults and children and who suffer from motor restlessness and sensory impairments for over 25 years.



These highly rated and internationally established sensory stimulation products, created in Denmark by healthcare professionals, have been providing health solutions for all types of conditions:

- ADHD
- Anorexia
- Anxiety
- Apoplexy
- Autism
- Brain Damage
- Cerebral Palsy
- Chronic Pain
- Deafness and/or Blindness
- Dementia
- Depression
- Development Disorders
- Huntington's Chorea
- Hypermobility
- Multiple Sclerosis
- Neurological Disorders
- Parkinson's Disease
- Psychiatric Disorders
- Sensory Disturbances
- Sensory Processing Disorder
- Sleep Disorders
- Stress
- Tourette's Syndrome

All of these products have been used in a range of environments and for addressing the needs of many health conditions. For more information on all of the featured products visit [www.reposefurniture.co.uk](http://www.reposefurniture.co.uk)

# Warranty and Labelling

All Protac products carry a two-year warranty.

## **Warranty Exclusions**

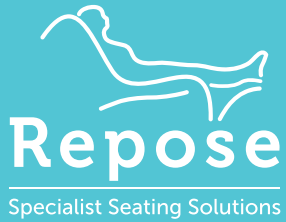
- Fabric and product damage resulting from misuse, negligence, abuse, accident or incorrect cleaning.
- Damage caused from normal wear and tear and lack of, or, incorrect maintenance.

## **Important Warranty notes:**

- Only the balls used by the manufacturer may be used in the Protac product range – to use others will invalidate your warranty.
- No modifications should be made to the products and all spare parts need to be those recommended by the manufacturer / supplier – to do so will invalidate your warranty.

## **Medical Equipment - Labelling**

The products are labelled according to legislation regarding medical equipment.



Repose Furniture Limited  
Attwood House  
Cokeland Place  
Cradley Heath  
West Midlands  
B64 6AN

Tel: 0844 7766 001\*

Fax: 0844 7766 002\*

Email: [info@reposefurniture.co.uk](mailto:info@reposefurniture.co.uk)

\*Calls cost 7p a minute plus your networks access charge.



[www.reposefurniture.co.uk](http://www.reposefurniture.co.uk)



Sensory  
Stimulation  
Products