Sunnaas Rehabilitation Hospital is Norway’s largest specialist hospital in the field of physical medicine and rehabilitation. The hospital provides multidisciplinary rehabilitation for patients with complex functional impairment following illness or injury. The hospital provides services at both regional and national levels.

Clinical treatment, research and collaboration form the basis of the hospital’s activities. The Regional Coordination Unit (RKE) and The National Centre of Expertise for Rare Diagnoses (TRS) are also organised within the hospital. Professional, involved and joyful are the hospital’s three core values on which all activity is based. Awareness of and respect for these values is to be apparent throughout the hospital community, and set a standard of behaviour towards patients, relatives, users, auxiliary health and welfare services and colleagues. Sunnaas Rehabilitation Hospital is a guiding force in the acquisition of knowledge and expertise concerning rehabilitation, and hopes to take a leading role in future development in the field of rehabilitation.
<table>
<thead>
<tr>
<th>CLINIC/TREATMENT</th>
<th>COLLABORATION</th>
<th>RESEARCH</th>
</tr>
</thead>
<tbody>
<tr>
<td>• 16 different treatment programmes</td>
<td>• Internal: Collaboration between the patient, relatives and the multidisciplinary team is a necessary prerequisite to ensure a successful rehabilitation process</td>
<td>• Several ongoing post doctorate projects and 16 ongoing PhD projects</td>
</tr>
<tr>
<td>• Approximately 750 hospital staff</td>
<td>• External: Collaboration with approximately 240 local councils annually. Collaboration between special health services, patients and their relatives is often necessary on a lifelong basis</td>
<td>• The country’s leading research environment in the field of medical rehabilitation</td>
</tr>
<tr>
<td>• Approximately 2800 discharged patients and 4500 polyclinic consultations per annum</td>
<td></td>
<td>• Research has been given high priority at the hospital for the last 10 years</td>
</tr>
<tr>
<td>• Patients are mainly from Norway’s Health region South East, but increasing numbers are admitted from the whole country</td>
<td></td>
<td>• An established international contact network, sharing and exchanging competence with specialists worldwide</td>
</tr>
<tr>
<td>• 60% of the patients are male and 40% are female</td>
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<tr>
<td>• Separate programmes for children within the hospital’s target groups</td>
<td></td>
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<tr>
<td>• Rehabilitation programmes accredited by the Commision on Accreditation of Rehabilitation Facilities (CARF) standards in 2006, 2009 and 2011</td>
<td></td>
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</tbody>
</table>
PATIENT SATISFACTION

Receiving feedback from our patients and their relatives is one of the most important elements in the hospital’s ongoing improvement policy. Since 1995, studies for monitoring patient satisfaction have been continuously conducted. **Results show that our patients are increasingly satisfied with the services provided. In 2012, 91.5 % of the adult patients reported that they were satisfied with their stay.**

“Coming here and meeting people who can put into words how I feel, is incredibly liberating.”

- former patient

“Am very satisfied with my stay, I have been taken seriously and had personal conversations with every member of the multidisciplinary team.”

- from the “User questionnaire”

“Sunnaas Rehabilitation Hospital stands out as a complete and extremely well-organized health facility. The hospital manages to encompass an innovative way of thinking and yet retain the basic ideas. It’s like coming home. Warm, safe and caring. Leaving is always a bit sad. Thank you for good service and a good stay.”

- from the “User questionnaire”

Patient
TREATMENT PROGRAMMES

We have treatment programmes which are based on 24 hours per day rehabilitation, programmes based on the use of polyclinical telemedicine and ambulant rehabilitation services. Some programmes are available for both adults and children. These include programmes for children with acquired brain injury, spinal chord injury and multitrauma. Certain programmes have a limited duration (short stay) for the evaluation of functional and activity abilities, and these may be applied for directly.

- **Primary rehabilitation**
- **Follow up**
- **Polyclinic**
- **Back to work polyclinic**
- **Problemsolving – sores, spinal chord injury, urological complications, pain problems**
- **Sequelæ (late changes/problems) following neurological illness**
- **Evaluation of swallowing function (dysphagia; adults and children)**

<table>
<thead>
<tr>
<th>Group programmes with a focus on activity and coping</th>
</tr>
</thead>
<tbody>
<tr>
<td>Intensive training aimed at cognitive and physical functions.</td>
</tr>
<tr>
<td>Specific functional evaluations:</td>
</tr>
<tr>
<td>- work-related ability</td>
</tr>
<tr>
<td>- suitability for possessing a driving licence</td>
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<tr>
<td>- rehabilitation potential</td>
</tr>
<tr>
<td>- adjustment of personal aids</td>
</tr>
<tr>
<td>- problems related to natural functions</td>
</tr>
<tr>
<td>- walking ability/spasticity</td>
</tr>
</tbody>
</table>

**Additional services**

- **Group sessions for relatives**
- **Centre for learning and coping**
- **User consultants**
- **Ambulant rehabilitation team**
- **Theme cafe for patients, relatives and professionals**
- **The stroke school and theme cafe are part of the Centre for Learning and coping’s activities.**

All of the rehabilitation programmes are accredited by the CARF of organization (Commission on Accreditation of Rehabilitation Facilities). CARF accredits rehabilitation services worldwide. Accreditation is based upon a comprehensive assessment which evaluates both the degree to which the present services give satisfaction, and the degree to which the leadership and personel have the ability to plan ahead and improve future services.
THE PATIENTS
Spinal Chord Injuries
An injury to the spinal chord causes a break in the connection between the brain and the body. The consequences depend upon the amount of damage in the spinal chord, and location of the injury in the spine. If all connection within the spinal chord is broken, the injury is called complete. An incomplete injury means that certain functions below the injured area are retained. We differentiate between traumatic (caused by external injury) and non-traumatic spinal chord injuries (caused by bleeding, tumour, inflammation, infection, wear, ageing, congenital disorders).

Severe multitrauma
Multitrauma is defined as serious injury in two or more areas of the body, usually to the muscular-/skeletal system. The designated areas of the body are face, chest, abdomen/inner pelvic organs, arms/legs and skin, head and throat. Multitrauma affecting movement can be caused by complicated fractures in arms, legs and pelvis, and/or amputations. Multitrauma can cause nerve damage external to the central nervous system: lungs, internal organs, musculature and face.

Acquired brain injuries
An acquired brain injury is an injury which occurs in the brain of a person who has developed normally prior to the injury. The most usual injuries are caused by stroke and traumatic brain injury, which occurs when the head is subjected to an impact which damages brain tissue, such as in traffic accidents or falling accidents. Other causes of acquired brain injury can be caused by lack of oxygen, poisoning, various infections and tumours.

Severe burn injuries
In Norway approximately 700 people each year receive burn injuries of varying severity. Burn injuries can be caused by open flames, scalding from hot liquid or steam, high voltage electrical power and caustic substances. Burn injuries are graded according to the depth of injury in the layers of skin.

Neurological illnesses
Neurological illness can affect the nervous system and lead to permanent loss of function. Certain neurological illnesses are congenital, some come with puberty or in adulthood. Examples of neurological diagnoses: poliomyelitis, cerebral palsy (CP), Multiple sclerosis (MS), Guillain-Barrés syndrome, muscular dystrophy, eredo-ataksia, polyneuropathy and more. The hospital also provides treatment for patients with longstanding (chronic) pain, where physical, emotional, social and behavioural factors may contribute to maintaining this condition.

Rare diagnoses
When fewer than 500 people in Norway have a certain diagnosis, it is by definition “rare.” TRS has treatment programmes for persons with congenital, rare diagnoses under the following seven diagnosis groups:
- Arthrogryposis multiplex congenita
- Dysmeli
- Short stature
- Marfans syndrome
- Ehler-Danlos syndrome (EDS)
- Osteogenesis imperfecta (OI)
- Spina Bifida
Anders Nupen

What kind of injury/illness did you have when you came to Sunnaas?
I came to Sunnaas with a broken neck after a diving accident in the summer 2008. I was admitted in August 2008 and stayed until the middle of January 2009. My injury was classified as complete, which meant that I would never be able to walk again. Even so, I could just move my right big toe a little while I was still at Ullevål Hospital.

What kind of rehabilitation did you have?
During the first weeks at Sunnaas Rehabilitation Hospital I suffered from neurological pain, and was so weak that I couldn’t even hold an empty paper cup. When I finally was able to function in a sitting position, I experienced relatively quick progress with ergo- and physiotherapy. After lots of training, I managed to move my big toe again. The development in my leg resulted in the diagnosis being altered from a complete to an incomplete injury. Responses below the level of injury gradually improved during my stay, but I left Sunnaas firmly placed in a wheelchair. I have since been back for check ups, and feel that I’m well taken care of!

How are you today
Every day consists of lots of training. Training which gives results. With the level of my injury, it isn’t normally possible to come as far as I have. Today I can manage to walk with a walking frame, and I’m making steady progress. I hope and believe that one day in the future I’ll be able to get around on foot by myself.
What kind of injury/illness did you have when you came to Sunnaas?
I had a traumatic brain injury after a car accident. I had several haemorrhages so they couldn’t tell which area of the brain was most damaged. My brain stem was twisted, and eventually my injury was classified mainly as a frontal lobe injury. I had several broken bones in my upper body, and a punctured lung and crushed liver. I had just woken up after 5 weeks in a coma when I arrived at Sunnaas. I sat in a wheelchair, as the whole left side of my body was paralysed.

What kind of rehabilitation did you have?
I had physio- and occupational therapy, and I had conversations with a speech therapist. This is what I had when I was at Sunnaas and which was continued by my local council when I went home.

How are you today
After 6 years of intensive rehabilitation, 3 years at college and more, I’m a qualified mental nurse.
What kind of injury/illness did you have when you came to Sunnaas?
I have the diagnosis Limb-Girdle which is a progressive muscular illness. I was diagnosed in 1993. It is very important for me to maintain my level of functioning, keep up with training and walking, and be able to extend my movement ability in water. It won’t improve my functional ability, but it can help me to retain the level of functioning that I have today which is really important to me.

What kind of rehabilitation did you have?
There are several problems connected with my illness which I’ve had to come to terms with in order to have sufficient energy to get through everyday life. For a long time I’ve suffered from urinary tract infections, but at Sunnaas Rehabilitation Hospital I’ve been able to try out different medicines. Good medication has resulted in me being able to sleep better at night, which has resulted in me having more energy during the daytime. I have also been able to try out various equipments, and taken clinical tests and evaluations of my urinary tract problems. I’ve also received help with several applications for assistive aids which I hadn’t quite been able to deal with on my own. I find it very easy to settle into my own “comfort zone”, so that an important part of my stay has been to take on challenges and be a bit more daring. My personal goal is to be able to continue working 80 % in my job as a salary consultant at Uloba in Drammen – for a long time to come.
How are you today
I feel more confident when I stand, and I have tried standing every time I’ve taken a shower during my stay. Now I know that I can do it. I’ve also received tips on easier ways of training which I can do at home. Having a muscular illness, it is very important for me to be able to discuss with professionals with special knowledge of my diagnosis, how I can best use my energy. If I can manage to do certain simple exercises at home in stead of using an extra day a week with a physiotherapist, it means I conserve a lot of energy. There’s a fine balance between activity and rest. Being able to come here and have my situation reviewed, and get help in reorganizing and prioritising my many challenges, is decisive in ensuring that I can continue the life I have today in the time to come.
COLLABORATION
Sunnaas Rehabilitation Hospital collaborates with 230 – 240 local councils each year. The ambition of being there for every user is a demanding one in a country where the distance between north and south is so great. The use of videoconferancing has therefore become a routine part of our patient-related work.

Collaboration between all those involved throughout the course of treatment, contributes to the total rehabilitation process for the patient/user. Good communication, coordination and a general overview are vitally important.

Many of the patients at Sunnaas Rehabilitation Hospital will need assistance in their everyday life. The dialogue with each individual patient regarding the best possible solution to meet their everyday needs is therefore a cornerstone in the rehabilitation process.
Successful rehabilitation depends upon the multidisciplinary team’s combined effort. It is well documented internationally that rehabilitation which takes place in centralised units, with all the necessary services, and ability to actively take part in lifelong check ups, achieves the best results of treatment regarding both physical and mental health. As far as possible, the patient should be encouraged to take responsibility for their own needs. At the same time, the rehabilitation team ensures that local services receive information necessary to ensure a good standard of continued care when the patient is discharged.

Birgit Lovise Skarstein (22) sustained a spinal chord injury in 2009 due to a wrongly administered epidural anaesthetic. She spent five months at Sunnaas Rehabilitation Hospital. Today she is studying political science at Oslo University and works as a consultant at the Norwegian sports association. She also participated in the Norwegian television series “Beyond Boundaries” with Lars Monsen.
The team coordinator, in close collaboration with the patient’s allocated doctor, is responsible for coordinating the rehabilitation services which an individual patient needs, both before admittance, during the patient’s stay and after discharge from the hospital. This is to ensure continuity in the patient’s course of treatment, personal plan and cooperation with local health services.

The senior doctor is medically responsible in every multidisciplinary team. Most senior doctors are specialists in physical medicine and rehabilitation. The doctor, in collaboration with the team coordinator and other team members, is responsible for the patient’s rehabilitation process. The hospital also has specialists in neurology, general medicine, internal medicine, anaesthesiology and physical medicine.

The nurses and health care staff take care of the patient’s basic needs. In collaboration with other members of the multidisciplinary team, they organize and arrange ways in which the patient can master every day tasks to the best of their ability.

“The nurse was able to be there through all the ups and downs without getting too emotionally involved. They had a professional distance but were still able to share happiness with me. As a patient, you don’t feel as though you are just goods on a conveyor belt.”
The physiotherapist starts by assessing the patient's ability to move. The physiotherapist treats, trains and advises with the aim of improving the patient’s physical function in order to be as independent as possible and master everyday life.

“Physiotherapy is a necessary part of rehabilitation. They gave me good advice and instruction. A good physiotherapist is one who presses you a bit so that you make the most of your capacity.”

The occupational therapist’s starting point is activities in daily living which a patient needs to be able to perform, and giving advice on training and technical assistive aids in order to perform these activities. The aim is for the patient to be as active and independent as possible at home, work, school and in recreation.

“The occupational therapist is good to have in the jungle of assistive aids. I got a lot of help with getting my wheelchair adjustments. They have a lot of experience and can pull a few strings when necessary. In the activity centre, which you can attend in your spare time, you can do all sorts of different things, like painting and ceramics. It’s a good place to go, where you can develop the healthy part of yourself.”

The way in which a person is able to master enormous changes in life, permanent injuries and illnesses, is a central theme in all rehabilitation. Sunnaas Rehabilitation Hospital today has one of the country’s largest neuro-psychological specialist environments.

“We all react in different ways. Even so, it’s important to be able to meet someone with experience, and whose main focus is on the psychological aspects after an injury or illness. It’s also important to be prepared for a possible shock reaction following such an upheaval in life.”

The psychologist

The occupational therapist

The physiotherapist
The social worker

The social worker gives advice and information regarding rights and welfare arrangements connected with work, home and health, and can assist you to get in touch with other agencies of help if necessary. Supportive conversations, network and family are central areas for the social worker.

“The social worker has an overview of the system and can establish contact in the beginning. They help you to find what you need and show you the possibilities.”

The physical education (P.E.) and sports teacher

The P.E. and sports teacher motivates and trains individual patients as well as helping to provide good and varied training opportunities for all patients. In collaboration with the patient’s physiotherapist, the P.E. and sports teacher takes part in assessing the patient’s training ability, and evaluating the need for further training after discharge from the hospital.

“With a spinal chord injury, it’s particularly important to get into training. Even so, physical training shouldn’t just be a duty. The P.E. and sports teacher has a healthy attitude and offers entertaining training activities different from the compulsory training we have to do because of our injury. The job they do in arranging sports training when we go home is very important. They know what’s possible and can demonstrate it with good examples.”

The special teacher/speech therapist

The special teacher/speech therapist has specialist competence in various fields: language and communication, visual impairment, swallowing impairment (dysphagia), computer-based assistive aids, educational and vocational counseling. Special teachers have a central role in the team when the patients are children/adolescents still at school.

Additional specialist services available at the hospital:
- Urologist
- Neurosurgeon
- Orthopedic engineer
- Hand surgeon
- Psychiatrist
- Plastic surgeon
- Sexual adviser
- Driving school
- Hospital priest
- Activity consultants
- Art consultant
Gunnhild Bottolfson, Yvonne Dolonen, Grethe Fure
A user consultant is someone with an injury or illness, and who can therefore be a role model for others in a similar situation. A user consultant gives advice to patients and their relatives about how best to cope with their injury or illness. The user consultant’s competence learned from experience is a valuable supplement to the multidisciplinary team’s professional expertise.

“The user consultant was really important for me. I was afraid that life as I knew it was over. Goodbye efficiency and activity! The user consultant was living proof that it is possible to have a good life after being injured. I learned a lot of practical things that you have to be in the situation to understand and feel. Downright “survival tips” from someone who has lived with their injury for a while and knows just how it feels.”

Birgit Lovise Skarstein (22), former patient
RESEARCH AND DEVELOPMENT

Knowledge-based
Research is important in the fields of medicine and health. Having its own research department, the hospital ensures that the medical practice and health services administered to patients are knowledge-based. Knowledge-based treatment ensures that patients receive a high standard of rehabilitation. The hospital aims to hold a central position in future development in the field of medical rehabilitation, not only regionally, but nationally and internationally. Sunnaas has a special responsibility for conducting research in the field of medical rehabilitation.

Collaboration/External network
Contact with universities and colleges is given high priority. In 2012 the hospital has six part-time posts at the University of Oslo, three at the Oslo and Akershus College, one at the Norwegian State College of Physical Education and Sport, and four guest professorships from the Karolinska Institute, the University of South Denmark, and the University of Gothenburg. The hospital has a wide international contact network. Altogether, the hospital has 25 professional specialists with a PhD and 35 with a Masters degree. A further 18 PhDs and 22 Master degree studies are currently underway. During the last few years, 5 PhD’s and 25 – 30 international articles have been submitted annually, and there is an active and determined effort to integrate research and the clinic. The majority of research projects are so-called clinical research projects, whereby the benefits to the hospital’s patient groups will be evident after a relatively short time.
Research competence  2003-2012

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<thead>
<tr>
<th></th>
<th>PhDs</th>
<th>Professors</th>
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</thead>
<tbody>
<tr>
<td></td>
<td>2003</td>
<td>2012</td>
</tr>
<tr>
<td>Doctors</td>
<td>3</td>
<td>8</td>
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<tr>
<td>Psychologists</td>
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<td>4</td>
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<td>Physiotherapists</td>
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<tr>
<td>Occupational therapists</td>
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<td>Rehabilitation nurses</td>
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<td>2</td>
</tr>
<tr>
<td>Social workers</td>
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</tr>
<tr>
<td>Special teachers</td>
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<tr>
<td>Sum</td>
<td>3</td>
<td>25</td>
</tr>
</tbody>
</table>

International publications

![International publications chart]

- Publications
- PhDs
Following the health reform in 2002, Sunnaas Rehabilitation Hospital has had special responsibility for development, both professionally and structurally, in the field of medical rehabilitation in Norway’s south eastern health region. The Regional coordination unit (RKE) for the south eastern health region is run by Sunnaas Rehabilitation Hospital as commissioned by the regional health facility.

In this capacity the hospital holds a central position in an area comprising 29 private retraining institutions and a total 1200 beds for rehabilitation patients.

**The Regional coordination unit:**
- has an overview of the region’s private and public rehabilitation resources, what they offer, their capacity and waiting lists, and provides information on available services to patients, their relatives and other interested parties (local health services, doctors, health facilities, private rehabilitation clinics, user organisations etc.)
- runs the rehabilitation information telephone – 800 300 61 – staffed by health professionals, and the website www.helse-sorost.no/rehabilitering with an overview of available rehabilitation services within the region
- evaluates all referrals from gps and medical specialists to rehabilitation institutions.
- carries out analyses of rehabilitational needs and the use of rehabilitation services on behalf of regional health facilities, hospitals and professional committees
- contributes to the development of coordinating units within the region’s hospital services
- in collaboration with the Directorate of Health and the country’s other regional coordinating units, is both a driving force and initiator in planning and conducting the annual ReHabilitation week.
One of the User Committee’s most important tasks is to promote mutual respect and understanding between the service user and the service provider. The hospital’s user committee is dedicated to upholding the interests of patients and their relatives, and contributing to the improvement of the hospital’s services. The committee shall assist in spreading knowledge about the user’s rights and obligations, and be active in ensuring that patients’ rights are upheld according to the law.

In addition, the committee shall:
- be aware of demands in the regulations pertaining to patients and their relatives
- keep updated regarding the hospital’s budget situation
- be represented in the hospital’s committees and project groups
- contribute to practical arrangements for patients and their relatives
- follow up on user inquiries
- provide information about the User Committee’s activity, structure and constitution.

For more information see www.sunnaas.no
Sunnaas Rehabilitation Hospital HF looking ahead to 2020

There have been several extensive and important inquiries concerning the field of medical rehabilitation since 2002. Norway’s Health Region South East has been systematic and goal orientated in allotting rehabilitation the position it needs within the specialist health service. A large part of this work has been conducted in cooperation with Sunnaas Rehabilitation Hospital HF.

Following the health reform in 2002, Sunnaas Rehabilitation Hospital has strengthened its position as one of Europe’s largest and most forward looking specialist hospitals in the field of medical rehabilitation. During this period, the hospital’s focus has been the improvement of patient services, and a strong emphasis on research and international collaboration. During the same period, a separate department for collaboration was established. We feel that this has been successful since all of the hospital’s treatment programmes have been accredited at the highest international level (CARF). Research activity has also greatly increased in the same period.

Norway needs a national commitment when it comes to rehabilitation. The progress made in the Health Region South East demonstrates that we are on the right track. The ultimate aim is to provide the same quality and breadth of rehabilitation services nationwide. The improvements in the clinic, research and collaboration at Sunnaas Rehabilitation Hospital have strengthened the health facility’s position as the natural driving force in the future development of rehabilitation services, both regionally, nationally and internationally.

Einar Magnus Strand
CEO, Sunnaas Rehabilitation Hospital HF
”We must be qualified for the future we want”

- ensure that every treatment programme is based upon predictable patient outcomes
- provide services for new target groups
- document the effect of treatment
- be one of the world’s best in rehabilitation research
- dare to be innovative
- exchange knowledge nationally and internationally
- establish a unit for innovative treatment
- develop the buildings on Nesodden
- expand the polyclinic service in Oslo

Einar Magnus Strand
Contact information

Further information about your stay as a patient at Sunnaas Rehabilitation Hospital will be given on arrival.
If you have any queries, call the service telephone 66 96 96 96 between 10.am and 2 pm.

If there are matters you wish to discuss with the User Committee at Sunnaas Rehabilitation Hospital, send an e-mail to brukerutvalget@sunnaas.no

For further information on Sunnaas Rehabilitation Hospital visit our website at www.sunnaas.no