SEVERANCE HOSPITAL
The First and the Best
Defining excellence in Korean health care

Severance Hospital was founded in 1885 and is Korea’s first westernized hospital. With the cooperation of the Korean government, two Americans, businessman and philanthropist Louis H. Severance and medical missionary Dr. Horace N. Allen launched what is now Korea’s most globally advanced hospital.

Severance’s success stems from the explicit expectations that come from being Korea’s first and the best. We have made our mark on medical history as a role model and a leader to other prominent health care institutions.

Severance Hospital has received accreditation from the Joint Commission International (JCI) for the first time in Korea, and has been acknowledged for employing state-of-the-art medical technology, including robotic surgery, to provide the highest standard of medical care to its patients.

We stand at the center of Korea’s rapidly developing medical field. As Asia’s leading hospital, Severance continually pursues and shapes the vision of medicine to serve patients from all over the world.

“With the love of God, free humankind from disease & suffering”
Why Severance?

There are certain elements that influence a patient’s decision in selecting a hospital overseas. Is it equipped with advanced medical technology and state-of-the-art equipment? Is its facilities and atmosphere pleasant and comfortable? Is the cost of treatment reasonable? Is it easily accessible? Severance fulfills all these prerequisites and more.

- Severance is a global hospital accredited by JCI for the global standard assessment in medical practice. As proven by the appraisals in the medical performance, Severance provides an ideal health care environment.
- Robotic surgery further boosts the quality of Severance’s health care. Our hospital performs the largest number of robotic surgeries in Asia, including prostate, thyroid, esophagus, and stomach cancer, etc.
- Severance strives to preserve the safety and comfort of each patient. We ensure a patient oriented environment, including accommodation, entertainment, exhibitions and concert performances.
- As reported by the New York Times, Korean hospitals are staffed by excellent doctors, who also served as visiting professors at highly regarded American medical institutions.

Why Severance Hospital?
Patients can always rely on our top quality health care.
The First and the Best

The health care system at Severance includes a body of medical professionals skilled in an array of today’s most advanced treatments. Severance aims to provide the patients with the best and the most effective medical treatments within its 5 hospitals, 7 specialized centers and 16 specialized clinics. Patients trust Severance for the highly extensive and expert health care system.
Representing Korea

An estimated floating population of 40,000 visits Severance Hospital every day. Among this vast number you will find many of Korea’s leading politicians and leaders, which has led to Severance being dubbed ‘The Hospital of the Presidents.’ The late former President Kim Dae Jung who was Nobel Peace Prize winner also stayed at Severance. In addition, Severance treats many overseas dignitaries, such as the former U.S. Secretary of State Henry Kissinger.

* Severance Hospital in the international press

Hospital Choices [April 2011]  Patient Beyond Borders [April 2009]

Medical Tourism Magazine [November 2008]  JoongAng Monthly Magazine - Hospital of the Presidents - the secret to Severance’s competitiveness [October 2009]
Global Hospital

In 2007, Severance was the first of all Korean domestic hospitals to receive Joint Commission International (JCI) accreditation and regained the accreditation in 2010 and 2013. This confirms that Severance is meeting the world’s highest quality standards in patient care.

In addition, Severance received the JCI certification for the Primary Stroke Program in 2010 and was re-accredited in 2013, which earned particular praise and recognition from the JCI.

Joint Commission International Accreditation

JCI is an international standard set by a U.S. non-profit body. The Joint Commission, which assesses the quality of medical organizations, offers hospitals certification based on the most reliable evaluation to guarantee global standards of treatment. While initial accreditation is granted on the basis of data gathered in the 4 months prior to certification, re-accreditation is granted only after a strict 3-year evaluation. This is to confirm the maintenance of all assessed standards of the JCI over the 3 years since the initial accreditation. In 2013, Severance succeeded in gaining reaccreditation with an average score of 98 in 1,294 sectors of 16 medical categories.
Advanced Medical Technology

“Patients who received treatment from Severance have applauded our medical professionalism. Many of these individuals come from countries that have advanced medical practices.

With highly skilled robotic surgery teams that perform over 800 endocrine surgeries, 600 urologic surgeries, and 140 stomach cancer operations a year, Severance has earned a reputation as the ‘mecca of robotic surgery’ in Asia. It is nearly impossible to find any sector in which Severance falls short of competitive global standards.

I feel that my mission, at the helm of the International Health Care Center, is to show these aspects of Severance to the foreign patients.”

- Dr. John A. Linton, Director of the International Health Care Center
Robotic Surgery

Since its first introduction in 2005, Severance Hospital performed over 10,000 robotic surgeries using da Vinci robotic surgical system as of November 2013, which is the world’s first achievement as a single institution.

Although robotic surgery is cutting-edge medical technology, it is usually employed in limited cases, such as prostate cancer. However, Severance has garnered astonishing success and widened the horizon of robotic surgery by operating on patients with thyroid cancer, stomach cancer, and colorectal cancer. Furthermore, Severance has introduced this technology to ear-nose-throat (ENT), open-heart surgery, cardiovascular surgery, obstetrics & gynecology, and neurosurgical fields.

Robotic surgery statistics at Severance Hospital (July 2005 – November 2013)

- Thyroid Cancer: 38.0%
- Prostate Cancer: 27.8%
- Colorectal Cancer: 7.6%
- Stomach Cancer: 7.7%
- Others: 18.9%

Severance Robot and MIS (Minimally Invasive Surgery) Center

Severance established the Asia-Pacific Education Center, which specializes in robotic operations. With the support from da Vinci surgical system creator Intuitive Surgical Inc., Severance is increasingly developing its capacity for technological advancements. Local doctors and nurses from 10 major universities as well as large-scale hospitals in the U.S., and over 600 doctors from across the world have visited Severance to observe robotic surgeries.
Our Successes

Today, an estimated 96% of all prostate cancer patients that underwent robotic operations are disease free. Robotic surgery has thus become standard in treating all prostate cancer cases.

At Severance Hospital, prostate cancer surgeries account for 28% of all robotic procedures. From 2005 to 2013, the hospital experienced an increase in the number of prostate cancer robotic surgeries from less than 10 to over 2,800 surgeries. Thanks to successful robotic surgical procedures, the hospital not only matches but also exceeds the success rates of renowned hospitals worldwide.

Surgery Without a Scar

Between October 2007 and November 2013, Severance performed more than 3,800 robotic operations for thyroid cancer. Severance has also vastly reduced pain and discomfort in the anatomical vicinity of the surgery.

One of the most outstanding results of the thyroid robotic operation is the patients’ high level of aesthetic satisfaction. Many female patients often resent the surgical scar left on their necks after surgery. In order to solve this problem, Severance invented a safe and unique method, called oncoplastic surgery, in which the operation is performed through the armpit. This treatment has drawn international attention and acclaim.

- More than 3,000 thyroid operations are performed each year. (More than 760 robotic operations were performed in 2012)
- Intuitive Surgical Inc. produced Severance’s guideline manual for robotic thyroid cancer surgery. Severance received authorization for thyroid related robotic operations from the FDA in July 2009.
Stomach Cancer

Severance’s Stomach Cancer Clinic seeks to provide multidisciplinary treatment and individually tailored therapy to our patients. A highly experienced team of stomach cancer experts including surgeons, gastroenterologists, oncologists, radiation oncologists, radiologists, and pathologists work together to develop an integrated cancer treatment plan for each patient.

In order to ensure optimal treatment and recovery, Severance abandoned three old surgical tools and techniques: scalpel, naso-gastric tube, and abdominal drainage. An electrocautery tool incises with the least amount of bleeding and halves the operation time from 4 to 2 hours.

Because the naso-gastric tube often causes nausea and respiration difficulties, Severance no longer requires naso-gastric tubes after surgery. The abdominal drainage tube, which causes severe pain and sometimes festering wounds, has also been abandoned. With new and innovative surgical methods, the stomach cancer treatment team has reduced the days of hospitalization from 10-12 days to only 5-7 days.

Over 50 foreign doctors from all over the world visit our clinic every year to gain knowledge and experience in stomach cancer treatments.

- **Severance Stomach Cancer Clinic achievements**
  - Leads stomach cancer treatment guidelines worldwide (established the usefulness of adjuvant chemotherapy for advanced stomach cancer)
  - More than 1,500 gastric cancer patients are treated every year with the world’s leading technologies
  - Carries out more than 370 endoscopic surgeries for early-stage stomach cancer patients a year and has accumulated over 2,500 cases so far
  - Executes more than 300 laparoscopic surgeries a year and has accumulated over 1,700 cases so far
  - As of November 2013, has performed 755 operations, the most in the world, using the da Vinci robotic surgical system
  - Sets a record of having a 0.2% post-operative mortality rate, 7% complication occurrences, and 77.4% overall survival rate for at least 5 years

- **Medical Results by Prof. Sung-Hoon Noh**
  - Served as the president of the International Gastric Cancer Association
  - Has conducted operations on more than 9,000 patients over 30 years since 1983 (currently world’s largest cases)
  - Has been professionally recognized as a distinguished doctor, and introduced/propagated the electrocautery method in stomach cancer surgery at the International Gastric Cancer Conference in 1996 for the first time in the world
Vertebral Disorders

Severance provides specialized treatment for patients with spine-related disorders and has achieved excellent results in treating vertebral disorders. In 2003, Severance Hospital became the first in Asia to successfully perform cervical arthroplasty, or artificial cervical disc replacement.

At Severance alone, 1,797 spinal surgeries were performed in 2012. Cervical vertebrae, especially the 7th vertebrae of the neck, accounts for over 30% of all hospital operations. The hospital also has highly certified experts who treat spinal cord tumors and ossification of the posterior longitudinal ligament of the cervical spine, an incurable disease more common in Korea, Japan, and China, causing compression of nerves by hardened ligaments of the vertebrae.

Minimally invasive spinal surgery
An operation performed while leaving tissue around the spine intact

Robotic spinal surgery
Robotic surgery is available for the treatment of various spinal disorders

Stem cell implantation
Clinical tests are underway to conduct effective and safe surgical procedures for patients with spinal cord injury

Cervical Vertebral disorders and treatments
Ossification of posterior longitudinal ligament (OPLL), Spinal cord tumor, Total disc replacement (TDR)

Lumbar vertebral disorder
Surgical or non-surgical treatments are provided for various lumbar vertebral disorders ranging from lumbagos to disk problems

Spinal tumors
More than 200 operations are conducted annually. This is the largest number in the world for a single cancer center to accomplish in a year
**Arthroscopic Surgery**

Arthroscopic surgery is performed by inserting a small arthroscope into the surgical region. It can reduce the recovery and rehabilitation period by minimizing incisions and reducing damage around the target tissue.

Severance has accumulated 30 years of clinical and research experience by performing over 9,500 knee and 3,000 shoulder arthroscopic surgeries. Researchers, led by Professor Sung-Jae Kim, the first president of the Asia Arthroscopy Congress, presented over 100 papers to the Science Citation Index journals and introduced operation techniques the hospital has developed. Severance has also registered over 10 videos for the visual and auditory library of the American Academy of Orthopedic Surgeons (AAOS). Professor Sung-Jae Kim has co-authored a chapter in the book, “Surgery of the Knee”, which is known as the ‘bible of knee surgery.’

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**Major illnesses treated by arthroscopic surgery**

<table>
<thead>
<tr>
<th>Anatomical region</th>
<th>Average duration of hospital stay</th>
<th>Diseases</th>
</tr>
</thead>
<tbody>
<tr>
<td>Shoulder joint</td>
<td>3 to 4 days</td>
<td>Recurrent dislocation, rotator cuff tear, impingement syndrome, adhesive capsulitis, SLAP lesion, calcific tendinitis</td>
</tr>
<tr>
<td>Wrist joint</td>
<td>3 to 4 days</td>
<td>Triangular fibro-cartilage complex damage, degenerative arthritis</td>
</tr>
<tr>
<td>Elbow</td>
<td>3 to 4 days</td>
<td>Epicondylitis, degenerative arthritis, rheumatoid arthritis, loose body, stiff joint</td>
</tr>
<tr>
<td>Knee joint</td>
<td>3 to 4 days</td>
<td>Anterior and posterior cruciate ligament tear, meniscus tear, osteochondritis dissecans, loose body, degenerative arthritis, rheumatoid arthritis</td>
</tr>
<tr>
<td>Ankle</td>
<td>4 days</td>
<td>Degenerative arthritis, rheumatoid arthritis, osteochondritis dissecans, loose body, ankle ligament injury, impingement syndrome</td>
</tr>
</tbody>
</table>
Stent Operations

Cardiovascular disease is the leading cause of death in the world. Angiography and stent operations have dramatically improved the early detection and treatment of cardiovascular diseases. Since the mid-90’s, Severance has pioneered in the use of these technological devices and in 1998, the hospital invented a stent that could be inserted into curved blood vessels. Such know-how and sophisticated techniques have inspired German manufacturers who specialize in medical device design.

With advanced medical technology and abundant clinical experience in using the coronary CT, intravascular ultrasound, and optical coherence tomography, Severance performs approximately 1,500 coronary angioplasty and stent insertions a year.

Severance Integrative Research Institute for Cerebral & Cardiovascular Diseases (SIRIC)

The Korean government supports Severance’s research in the ever-growing field of knowledge of brain and cardiovascular diseases. Selected as a leading research-centered hospital by the Ministry of Health and Welfare in 2008, Severance has carried out research and treatment procedures to overcome brain and cardiovascular diseases. This includes the development of contrast media for selective diagnosis of cardiovascular diseases and utilizing nano-technology and next-generation stents to treat blood vessel related diseases.
Neurosurgery

Severance is proud to present Korea’s number one neurosurgery department. For the first time in Korea, Severance introduced deep brain stimulation operations for diseases, such as Parkinson’s disease, essential tremor, various types of dystonia, and psychiatric disorders.

In addition, Yonsei Gamma Knife Center introduced the most recent version of Gamma Knife machine, Perfexion in 2008 and has performed more than 500 Gamma Knife radiosurgeries for various brain diseases, such as benign and malignant brain tumors, cerebral arteriovenous malformations, and trigeminal neuralgia each year.

Taking advantage of the technology of the intraoperative MRI and neuronavigation, Severance Neurosurgery Department serves as an outstanding training center for intraoperative MRI and surgical neuroanatomy. The department is recognized internationally for the multitude of successful neurosurgeries and neurological treatments especially concerning the brain tumors such as pituitary tumors.

In the field of child and adult epilepsy, Severance has provided remarkably effective surgical treatments with over 200 epilepsy-related operations performed each year. Recently, Severance introduced a new non-invasive brain treatment, ‘Magnetic Resonance guided Focused Ultrasound (MRgFUS)’ for the first time in Korea and will be widely used for treating movement disorders and psychiatric disorders. Severance Neurosurgery Department, as the leader of this field is now expected to innovate the future of neurosurgical treatment.

Intraoperative MRI
Severance has used intraoperative MRI for the removal of tumors since it was first introduced in 2005. Intraoperative MRI aids in the precise resection of tumors by checking the degree of tumor removed during the procedure. In addition, Severance introduced remodeled navigation for the first time in Korea, which allows review of functional imaging through the region of the brain inside the operating room.

Fluorescence imaging helps to isolate tumors
Since late 2009, Severance has conducted surgery using a special dye pigment that stains only tumors. Along with this technique, fluorescent imaging guides surgeons in identifying tumors and detecting the degree of damage in blood vessels.
Health Promotion in a Comfortable Setting

Severance believes that not only treatment but prevention and early detection of disease are the key to the future. In order to meet this goal, Severance operates quality health care within a pleasant atmosphere to promote regular health screenings.

Severance tailors health screening processes towards early detection and diagnosis of serious diseases, including cerebrovascular disease, heart disease, and an array of cancers.

In addition, Severance holds world renowned doctors and specialists in many fields ready to provide any necessary treatment.

Severance Executive Health Screening Program

01. **Blood test**
   - Blood cell count, Immunological / Serological test, Biochemistry (Glucose, Cholesterol, Renal function, Liver function, Electrolyte test), Viral Hepatitis marker, Tumor marker

02. **Urinalysis, Stool test**

03. **Body composition analysis & Blood pressure**

04. **Gastroenterology**
   - Esophago-gastroduodenoscopy, Colonoscopy, Abdomen ultrasonography

05. **Endocrinology**
   - Bone densitometry, Thyroid ultrasonography, Thyroid function test, Vitamin D level

06. **Pulmonology**
   - Low dose chest CT, Pulmonary function test

07. **Ophthalmology**
   - Specialist consultation, Visual acuity, tonometry, Refraction, Retina fundus photography

08. **Ear, Nose and Throat**
   - Specialist consultation, Hearing evaluation, Sinuscopy, Laryngoscopy, Otoscopy

09. **Dental work-up**
   - Specialist consultation, Dental X-ray panorama

10. **Gynecology (Female)**
    - Specialist consultation, Pelvic ultrasonography, HPV, PAP smear

11. **Urology (Male)**
    - Specialist consultation, Prostate ultrasonography, Uroflowmetry, Residual urine volume check, Testosterone level

12. **Special Image examination**
    - PET-CT / Whole body MRI (Alternative): Early diagnosis of various cancers and check for transfer in a single visit

13. **Brain**
    - Brain MRI & MRA: an advanced way of examining the nervous system, useful in preventing strokes and cerebral hemorrhages & aneurysms

14. **Cardiovascular system**
    - Coronary 3D CT / Echocardiography: Detection of angina pectoris, myocardial infarction, coronary artery diseases using a more comfortable and efficient method. These methods are less invasive.
Foreign Patients

Severance Hospital International Health Care Center is the most preferred clinic in Korea among the foreign patients. The specialized care and the constant monitoring and support of the International Health Care Center staff ensure that more than 50,000 foreign patients visiting Severance Hospital each year have the best possible environment in which to get the treatment they need.

Major Insures that cover international medical treatment
- CIGNA International
- VANBREDA International
- ARAMCO
- Foreign Service Benefit Plan
- United Healthcare International
- Tricare (Prime/ Standard)
- HTH Worldwide
- Seven Corners

- Translation and Interpreting
  Translation and interpreting are always available for English, Japanese, Russian, and Chinese. Other languages can be arranged upon request.

- Foreign patient expense plan
  The International Health Care Center can provide an estimated cost of medical treatment upon request before medical consent. In case patients have overseas insurance coverage, hospitalization costs can be directly billed to the insurance companies where the patient’s policy is held. However, many outpatients often prefer the pay and claim system for treatment costs.
Medical Hub of Asia

An hour and a half from Japan, two hours from China, three hours from Russia, and three and a half hours from Mongolia – this is how close we are to most of the Asian population.

Severance Hospital is the leading hospital with top quality medical service among other major hospitals in Korea. Easily accessible and devoted to our patients, Severance is ready to serve all who seek professional medical attention.
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Website: http://www.yuhs.or.kr/en/
International Health Care Center (email / direct lines)
English: ihcc@yuhs.ac +82-2-2228-5800
Russian: ihccru@yuhs.ac +82-2-2228-5805
Japanese: ihccjp@yuhs.ac +82-2-2228-5801
Chinese: ihcccn@yuhs.ac +82-2-2228-9835

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