Quality counts when referring patients to hospitals and physicians, so Cleveland Clinic has created a series of outcomes books similar to this one for its institutes and departments. Designed for a health care provider audience, the outcomes books contain a summary of our surgical and medical trends and approaches; data on patient volume and outcomes; and a review of new technologies and innovations. We hope you find these data valuable. To view all our outcomes books, visit Cleveland Clinic’s Quality Web site at clevelandclinic.org/quality/outcomes.
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The 2006 Outcomes publication reflects our growing emphasis and effort to measure the functional outcome of a wide range of surgical procedures performed by the staff in our department. This publication reflects the inpatient clinical care provided on the main campus and our outpatient surgical centers. Our focus this year is on hip, knee and shoulder arthroplasty and rotator cuff repair and anterior cruciate ligament reconstruction. This publication reports functional outcomes during the early postoperative period as well as one year follow-up. We used validated patient-reported functional outcome tools (SF36, SF12, Knee Injury and Osteoarthritis Outcome Score (KOOS), and Shoulder Score). We also explored patient preoperative characteristics that impact early postoperative and one-year outcomes. In this issue we concentrate on the emotional status and age of patients prior to surgery as factors that influence patient-reported results of surgery. We also report our patient satisfaction and length of stay data for several commonly performed procedures.

Our department’s Orthopaedic Clinical Outcomes Center (OCRC) was formed in 2005. Our staff now includes six full-time research staff and three part-time support staff. The OCRC staff is responsible for the collection, management and analyses of the data presented in this year’s outcomes publication. Our staff will continue to expand our department’s efforts in the next year to include clinical outcome data collection for other outpatient and inpatient clinical care sites within the Cleveland Clinic Health System. We look forward in the future to present data on a greater number of patients with a wider spectrum of clinical problems. I hope you find the 2006 publication informative and of greater value than the 2005 publication. I look forward to your comments and feedback.

Joseph P. Iannotti, M.D., Ph.D.
Chairman, Department of Orthopaedic Surgery
Department Overview

The mission of the Department of Orthopaedic Surgery is to provide world-class compassionate care and world-class service to all patients who desire treatment at Cleveland Clinic for orthopaedic needs. We serve our patients as our first and most important priority. Care is provided for patients with the most complex clinical problems from around the country and world. Our department is dedicated to the education and training of residents, fellows, and colleagues both within and outside Cleveland Clinic. Our goal is to select and train orthopaedic residents and fellows interested in remaining academically productive and who will contribute to our profession through their own teaching and research. We also understand the vital need for continual development of new knowledge and innovation through both basic science and clinical research activities. Our current full-time clinical staff includes 43 orthopaedic surgeons, nine podiatrists and 10 office-based physicians. The research staff includes eight Ph.D. staff scientists.
Orthopaedic Surgery

Upper Extremity Surgeries

<table>
<thead>
<tr>
<th>Year</th>
<th>Shoulder</th>
<th>Upper Arm &amp; Elbow</th>
<th>Forearm &amp; Wrist</th>
<th>Hand &amp; Fingers</th>
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Lower Extremity Surgeries

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<th>Year</th>
<th>Pelvis &amp; Hip Joint</th>
<th>Femur &amp; Knee Joint</th>
<th>Leg &amp; Ankle Joint</th>
<th>Foot and Toes</th>
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Quality & Outcome Measures

Functional Outcomes

Functional outcomes presented in this booklet were measured within the framework of four different projects: 1) mail-based Hip and Knee Registry started in 2001; 2) office/mail-based Shoulder Registry started in 2000; 3) multicenter clinical database for patients undergoing anterior cruciate ligament (ACL) reconstruction; 4) office-based OrthoMiDaS Registry started in 2006. The first three registries measure mid- and long-term outcomes (one year and more). The OrthoMiDaS is used in this booklet to explore functional status of various groups of patients during the early postoperative period.

All registries are compatible; they capture socio-demographic characteristics, self-reported comorbidities, and validated general quality of life (Short Form 36 or Short Form 12) instruments. On the top of this list, the Shoulder and ACL registries apply validated condition-specific tools (shoulder questionnaire and knee-related KOOS and International Knee Documentation Committee (IKDC) questionnaires).

The ten SF6 and SF12 scores utilized were Physical Component (PCS), Mental Component (MCS), Bodily Pain (BP), Role-Physical (RP), Physical Functioning (PF), General Health (GH), Role-Emotional (RE), Social Functioning (SF), Vitality (VT) and Mental Health (MH). Both questionnaires were scored using normalized algorithms. As a result, the obtained normalized scores have a mean value of fifty in the non-patient population. Every ten units correspond to one standard deviation from the norm. Values higher than fifty indicate better than “average” self-reported health. Values lower than fifty indicate worse than “average” self-reported health. Reference values of fifty are shown as horizontal red lines on all figures.
The shoulder questionnaire contains three domains: Pain, Satisfaction and Function. There is also one Total Score. The KOOS questionnaire captures five domains: Symptoms, Pain, Activity of Daily Living (ADL), Physical/Sport Activity and Knee-related Quality of Life (QOL). All scales are scored in the range from 0 to 100; the higher scores are better.

All pre- and postoperative analyses were implemented using a paired-samples t-test. Significances marked as *, **, and *** indicate p-level of 0.05, 0.01 and 0.001, respectively. Functional improvement after surgery in a group of patients was also quantified as a percent of patients demonstrating a change that exceeds a pre-selected threshold that deemed clinically meaningful.

When modeling the time trend of functional recovery after lower extremity surgeries, the data collected by the Hip and Knee Registry were combined with the OrthoMiDaS data. Statistical analysis was implemented using generalized linear models. The dependent variable (PCS measured at different time moments after surgery) was treated as a linear function of four predictors: logarithmically transformed time after surgery, baseline PCS and MCS, and age. Calculations were implemented independently for five groups of surgeries.
Total Hip Arthroplasty

Total hip arthroplasty (THA) leads to statistically significant improvement of all ten scores of the SF36 questionnaire one year after surgery. Mean scores for all patients who are one year after THA approach a score of 50, which is the mean score for the healthy general population. Persistent limitations are often related to other medical problems. Physical Composite Score (PCS) for all patients, as a group, improves by a mean of 13 units, but in some patients it can improve by over 30 units. Improvement in 75% of patients exceeds 6.6 units.

Improvement of health-related quality of life one year after revision of hip arthroplasty is often not as great as after primary THA. The mean change in PCS is only 5.6 units; 35% of patients improve by more than 6.6 units.
Orthopaedic Surgery

**Graphs:**
- **Total Hip Arthroplasty (N=650)**
- **Revision of Hip Arthroplasty (N=159)**

**Scores:**
- PF: Physical Functioning
- RP: Role-Physical
- BP: Bodily Pain
- GH: General Health
- VT: Vitality
- SF: Social Functioning
- RE: Role-Emotional
- MH: Mental Health
- PCS: Physical Component
- MCS: Mental Component

**Significance Levels:**
- * p=0.0
- ** p=0.01
- *** p=0.001

**Healthy Population:**
- PF: ***
- RP: ***
- BP: ***
- GH: ***
- VT: ***
- SF: ***
- RE: ***
- MH: ***
- PCS: ***
- MCS: ***
Total Knee Arthroplasty

Unilateral primary total knee arthroplasty (TKA) leads to statistically significant improvement of eight scores of the SF36 questionnaire one year after surgery. As a group, patients undergoing TKA are limited by a score of 50, the mean score for the general population. Persistent limitations are often related to other diseases or arthritis in the spine or other joints. The Bodily Pain (BP) score improves by 10.6 units. Physical Composite Score (PCS) improves by 10 units. Improvement in 61% of patients exceeds 6.6 units.

Improvement of health-related quality of life one year after revision of a failed TKA is also significant, but in average is less than in primary TKA. Nine scores demonstrate significant improvement. The Bodily Pain score improves by a mean of 8.1 units. PCS improves by a mean of 7.1 units. An improvement of more than 6.6 units is seen in 47% of patients.

Bilateral total knee arthroplasty leads to statistically significant improvement of eight scores of the SF36 questionnaire one year after surgery. Mean score for Bodily Pain one year after bilateral TKA actually achieves the level of 50 (the level of pain reported by an average healthy individual). Similarly, Physical Composite Score (PCS) improves by a mean of 15 units, to 44. Improvement in 75% of patients exceeds 6.6 units.

Scores tend to be higher after bilateral TKA than after unilateral TKA, because these patients are not limited by persistent arthritis in the opposite knee after surgery.
Unilateral Total Knee Arthroplasty (N=579)

Revision of Total Knee Arthroplasty (N=147)

Bilateral Total Knee Arthroplasty (N=315)
Total Knee and Hip Arthroplasty (Time Trend)

 Patients generally surpass their preoperative level of function within 3 to 6 weeks following surgery and continue to improve gradually as their strength, balance and confidence improve. As expected, patients who undergo bilateral TKA report lower PCS scores early after surgery, but go on to improve more rapidly and experience a greater overall increase in physical function than patients having only one knee replaced. Also, as expected, patients with failed TKA and THA recover slower than patients who undergo primary joint replacement. The magnitude of improvement of Cleveland Clinic patients after hip and knee replacement is among the best reported results in the nation.

 Figures present the result of interpolation of the multivariate model for a patient with average characteristics prior to surgery: 65 years old, MCS=50. Stars indicate the level of the PCS prior to surgery (30 units).
Anterior Cruciate Ligament Reconstruction

Self-reported outcome measures were captured for patients undergoing anterior cruciate ligament (ACL) reconstruction as part of the multicenter clinical study.

Patients undergoing ACL reconstruction demonstrate significant improvement in all domains of the Knee Injury and Osteoarthritis Outcome Score (KOOS) and in the International Knee Documentation Committee (IKDC) score at two-year follow-up. In particular, improvement is greatest in the domain of sports and knee-related quality of life, which addresses the primary indication of improving functional knee stability in young (average age, 27 years), active patients with ACL deficiency.

In comparison to the five other clinical sites, Cleveland Clinic patients demonstrate non-significant trends toward better improvement in all domains of the KOOS as well as in the IKDC scores.
Total Shoulder Arthroplasty

Ninety-five percent of all patients (n=75, average age 67 years) with primary osteoarthritis who underwent total shoulder replacement with an anatomic prosthetic design and all polyethylene component demonstrated significant clinical improvement of at least 15 points in shoulder score (total) at least one year after surgery. On average, patients improved over 50 points in shoulder scores.

Eighty-two percent of all patients (n=12, average age 38 years) with primary osteoarthritis who underwent humeral head resurfacing (non stemmed humeral implant) with soft tissue glenoid interposition had significant clinical improvement of at least 15 points in shoulder score (total) at least one year after surgery. On average, patients improved 40 points after surgery. These patients are younger, more active, have lower satisfaction and total score than patients with standard total shoulder arthroplasty. Soft tissue glenoid resurfacing was performed to avoid the later complications of polyethylene wear. Long-term results are needed to define the efficacy of this new procedure.
<table>
<thead>
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<th>Score</th>
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<tr>
<td>Satisfaction</td>
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<tr>
<td>Function</td>
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<tr>
<td>Total</td>
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</table>

**Total Shoulder Replacement**

- **Function***
- **Satisfaction***
- **Pain***
- **Activity***
- **Total***

- * p=0.0
- ** p=0.01
- *** p=0.001

**Humeral Resurfacing with Soft Tissue Resurfacing of the Glenoid**

- **Activity***
- **Pain***
- **Satisfaction***
- **Function***
- **Total***

- * p=0.0
- ** p=0.01
- *** p=0.001
Rotator Cuff Tear Arthropathy

Fifty percent of patients with rotator cuff tear arthropathy (n=12, average age 69 years) treated with humeral hemiarthroplasty have clinically significant improvement of at least 15 points in shoulder score (total). The average improvement in shoulder score was 17 points.

Eighty percent of patients with rotator cuff tear arthroplasty (n=12, average age 68 years) treated with reverse total shoulder arthroplasty had clinically significant improvement of at least 15 points in shoulder score (total) at least one year from surgery. On average, patients improved over 50 points in their shoulder scores. The level of shoulder function after reverse arthroplasty accounted for the largest difference when compared to hemiarthroplasty for the same type of arthritis.
Rotator Cuff Repair

Ninety-three percent of all patients having primary repair of a full thickness rotator cuff tear by arthroscopic (n=55, average age 58 years) or open repair (n=34, average age 59 years) had clinically significant improvement of at least 15 points in shoulder score at least one year after surgery. On average, the patients improved over 50 points in shoulder scores. There were no differences in outcome but the size of the tears treated by open surgery was usually larger and they were more chronic than those treated by arthroscopic means.

![Graph showing comparison between arthroscopic and open repair](image-url)

- *p=0.0
- **p=0.01
- ***p=0.001
Patient Experience

We ask our patients about their experiences and satisfaction with the services provided by our staff. Although our patients are already indicating we provide excellent care, we are committed to continuous improvement.
A Note regarding H-CAHPS, the New National Standard for Reporting Hospital In-Patient Experience of Care:

The service excellence data displayed above shows results from an external patient experience survey administered for Cleveland Clinic.

A new national standard patient experience survey instrument called H-CAHPS was instituted across the country on October 1, 2006. Public reporting of initial results on CMS's Hospital Compare website is anticipated in late 2007. Accordingly, Cleveland Clinic outcomes booklets will transition to reporting H-CAHPS inpatient service excellence results in 2007.
Shoulder Arthroplasty Preoperative Planning Tool and Surgical Simulator

More than 20,000 shoulder arthroplasties are performed annually in the United States. The techniques and indications for total shoulder replacement continue to evolve. The abilities to comprehensively plan the surgical steps preoperatively, to predict the type and size of implants best suited for individual patients, and to anticipate the specific techniques required to execute the surgical decisions are deficient facets of shoulder replacement surgery. Many of the surgical decisions are based upon surgeon experience and intraoperative estimations of bony anatomy, dimensions and orientation.

In the last three years, Cleveland Clinic developed the necessary tools to address these deficiencies. This involves novel imaging software that utilizes standard CT scan images rendered into three-dimensional, volumetric images. By digitally subtracting the soft tissues, such as skin and muscle, the osseous structures of interest can be isolated for further scrutiny. Precise representations of currently available implants can also be manipulated within the software and be virtually implanted to assess fit and orientation while in the preoperative setting. In addition, bone grafts can be added and all the reaming steps can be performed before surgery. How the implants relate to the glenohumeral joint in various pathologic entities will serve as a foundation for further research into shoulder implant design and utilization. We also expect this software, combined with intraoperative, computer-assisted navigation, will allow the surgeon to perform the same steps in surgery with the same outcome as performed preoperatively using the surgical simulator. This instrument may also prove useful as a basis for the development of similar tools specific to arthroplasty of joints other than the shoulder.
Therapeutic Footwear for Diabetic Patients

Three-year recurrence rates up to 100% have been reported in the literature for plantar neuropathic foot ulcers in diabetic patients. These lesions can be the precursors to minor and major amputations because of the high risk for infection. A major goal of research in the Diabetic Foot Care Program of the departments of Orthopaedic Surgery and Biomedical Engineering is the design of therapeutic footwear to redistribute pressure over the plantar surface of the foot in a way to prevent ulcer recurrence.

Finite element modeling is an engineering technique in which complex computer models are developed from simultaneous analysis of thousands of simple, small elements. To understand the general principles of load redistribution under the foot, a computerized reconstruction of the bone and soft tissues is created from magnetic resonance images and assigned mechanical properties based on experimental data. The interface of a variety of different footwear configurations with the foot can be modeled by applying realistic loads and predicting the pressure distribution between the foot and the shoe. In the example shown in Figure 1, the extent of pressure relief obtained by support placed under the metatarsals is shown. The optimal position of support can be determined from multiple runs of the computer model.

Experiments with human subjects have also provided insight into improved design of therapeutic footwear. Most prescription insoles are designed based on foot shape alone. A recent experiment compared conventional insoles with manufactured insoles based on measurements of both shape and plantar pressure under the foot (Figure 2). Results indicate considerable reduction in pressure under the metatarsal heads can be achieved with the new approach.

We anticipate a reduction in recurrence rates for plantar ulcerations in diabetic patients will result from a multifaceted program that includes improvements in therapeutic footwear, patient education and other interventions designed to improve adherence to prescription diabetic footwear.
A computer model of the interface between the forefoot and footwear incorporating a metatarsal pad.

Reduction in pressure (right) under the foot as a result of the metatarsal pad.

A therapeutic insole for diabetic patients designed based on both foot shape and the distribution of plantar pressure.

Reduction in peak plantar pressure under the metatarsal heads of diabetic patients using insoles based on both shape and pressure.
The Technique of Distraction Lengthening for Hand and Upper Extremity

The current technique of distraction osteogenesis, whereby congenitally shortened bones are lengthened to create functional fingers and limbs in the upper extremity, was developed by William H. Seitz Jr., M.D., over the past 20 years. Recently, new, innovative designs of the lengthening apparatus to improve ease of application and to make the lives of children and their families easier during the process of creating fingers and functional limbs were introduced by Dr. Seitz and are now available to surgeons throughout the world. Miniature lengthening apparatus and streamlined unilateral (rather than circular) lengthening devices are applied easily and provide stability throughout the duration of lengthening. This technique provides a mechanism to provide functional hand use in children born without fingers and deficient upper limbs. Devices are manufactured by the Stryker Corporation.
A child born with only a thumb and no fingers on his left hand underwent the distraction osteogenesis procedure, creating three functional fingers.
New Knowledge

Selected Publication Highlights

Sports Medicine


Joint Reconstruction


Foot & Ankle


Hand & Upper Extremity


**Pediatrics**


General


Joseph P. Iannotti, M.D., Ph.D.
Chairman, Department of Orthopaedic Surgery
Maynard Madden Professor, Cleveland Clinic Lerner College of Medicine of Case Western Reserve University

Appointed: 2000

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Medical School: Northwestern University Medical School, Chicago

Residency Training: Hospital of University of Pennsylvania, Philadelphia

Advanced Training: University of Pennsylvania School of Medicine, Philadelphia
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Georgeanne Botek, D.P.M.
John Cann, D.P.M.
Brian Donley, M.D.
Robert Dushin, D.P.M.
James Hall, D.P.M.
Christopher Herbert, D.P.M.
Patrick McKee, D.P.M.
Dina Stock, D.P.M.

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Avrum Froimson, M.D.
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Jeffrey Lawton, M.D.
Jason Scalise, M.D.
William H. Seitz Jr., M.D.
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Michael Moore, M.D.
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Rick Figler, M.D.
Paul Gubanich, M.D.
Morgan Jones, M.D.
Susan Joy, M.D.
Richard D. Parker, M.D.
Kelly Richter, M.D.
Mark Schickendantz, M.D.
James Williams, M.D.

Orthopaedic Clinical Research Center

Boris Bershadsky, Ph.D., Director
### Joint Appointment Staff

<table>
<thead>
<tr>
<th>Name</th>
<th>Joint with</th>
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</thead>
<tbody>
<tr>
<td>Suneel Apte, M.B.B.S., D.Phil.</td>
<td>Biomedical Engineering</td>
</tr>
<tr>
<td>Thomas Bauer, M.D., Ph.D.</td>
<td>Anatomic Pathology; Center for Spine Health</td>
</tr>
<tr>
<td>George H. Belhobek, M.D.</td>
<td>Diagnostic Radiology</td>
</tr>
<tr>
<td>Gordon Bell, M.D.</td>
<td>Center for Spine Health</td>
</tr>
<tr>
<td>Robert Biscup, D.O.</td>
<td>Cleveland Clinic Florida; Center for Spine Health</td>
</tr>
<tr>
<td>Peter R. Cavanagh, Ph.D.</td>
<td>Biomedical Engineering</td>
</tr>
<tr>
<td>Brian Davis, Ph.D.</td>
<td>Biomedical Engineering</td>
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<tr>
<td>Chad Deal, M.D.</td>
<td>Rheumatic &amp; Immunologic Disease; Women's Health</td>
</tr>
<tr>
<td>Kathleen Derwin, Ph.D.</td>
<td>Biomedical Engineering</td>
</tr>
<tr>
<td>Vincent Hascall, Ph.D.</td>
<td>Biomedical Engineering</td>
</tr>
<tr>
<td>M. Elaine Husni, M.D.</td>
<td>Rheumatic &amp; Immunologic Disease</td>
</tr>
<tr>
<td>Isador H. Lieberman, M.D.</td>
<td>Center for Spine Health; Cancer Center Division Office; Women's Health</td>
</tr>
<tr>
<td>Robert F. McLain, M.D.</td>
<td>Center for Spine Health; Biomedical Engineering</td>
</tr>
<tr>
<td>R. Douglas Orr, M.D.</td>
<td>Center for Spine Health</td>
</tr>
<tr>
<td>David W. Piraino, M.D.</td>
<td>Diagnostic Radiology</td>
</tr>
<tr>
<td>Michael Recht, M.D.</td>
<td>eRadiology; Radiology</td>
</tr>
<tr>
<td>Bradford Richmond, M.D.</td>
<td>Diagnostic Radiology; Women's Health</td>
</tr>
<tr>
<td>Jean Schils, M.D.</td>
<td>Diagnostic Radiology</td>
</tr>
<tr>
<td>Maria Siemionow, M.D., Ph.D.</td>
<td>Plastic Surgery; Transplantation Center; Immunology</td>
</tr>
<tr>
<td>Antonie van den Bogert, Ph.D.</td>
<td>Biomedical Engineering</td>
</tr>
<tr>
<td>Guang Yue, Ph.D.</td>
<td>Biomedical Engineering; Physical Medicine &amp; Rehabilitation; Center for Integrative Medicine</td>
</tr>
</tbody>
</table>
Department Contacts | How to Refer Patients

For Hospital Transfers or Physician Consults
800.553.5056
24 hours a day, seven days a week

Joint Reconstruction, Pediatrics, Tumor and Trauma
216.444.2606

Hand & Upper Extremity and Foot & Ankle/Podiatry
216.444.6260

Sports Medicine
216.444.2620
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Sports Health & Orthopaedic Rehabilitation
9500 Euclid Ave./A41
Cleveland, Ohio 44195
216.444.2620

Beachwood
216.839.3777

Sports Health & Rehabilitation — Beachwood
216.378.6240

Lorain
440.204.7800

Euclid Hospital
216.692.7750

Independence
216.986.4000

Solon
440.519.3003

Strongsville
440.878.2500

Westlake
440.899.5600

Sports Health & Rehabilitation — Willoughby Hills
440.516.5400

Rehabilitation Locations
Mentor
440.205.1714 (East of Mentor)
440.942.3120 (West of Mentor)

For details about Orthopaedic Surgery, visit www.clevelandclinic.org/ortho.
For maps and locations, visit www.clevelandclinic.org/maps.
Surgical Infection Prevention

Surgical site infections contribute to surgical morbidity and mortality in all specialties. The timely administration and the appropriate selection of antibiotics prior to surgery in appropriate patients have been shown to reduce surgical site infections. A multidisciplinary team, involving Surgery, Infectious Disease, Anesthesia, Nursing and Quality has been working to ensure that our patients receive their antibiotics in a timely fashion. Data collected show our successful results:

* Source: United States Department of Health and Human Services, Hospital Compare
Most current reported discharges April 2005 to March 2006.
National Surgical Quality Improvement Program

The American College of Surgeons’ National Surgical Quality Improvement Program (NSQIP) is a national program that objectively measures surgical outcomes. It reports risk-adjusted 30-day mortality and morbidity outcomes. Currently, the program includes surgical cases from Cleveland Clinic’s departments of Colorectal Surgery, General Surgery and Vascular Surgery. As this program continues to grow at a national level, Cleveland Clinic is committed to expanding it to all surgical departments. We view NSQIP as the most valid, independent way to document our surgical outcomes and provide a basis for ongoing performance improvement.
Cleveland Clinic Overview

Cleveland Clinic, founded in 1921, is a not-for-profit academic medical center that integrates clinical and hospital care with research and education. Today, 1,700 Cleveland Clinic physicians and scientists practice in 120 medical specialties and subspecialties.

Cleveland Clinic’s main campus, with 41 buildings on 130 acres in Cleveland, Ohio, includes a 1,000-bed hospital, outpatient clinic, subspecialty centers and supporting labs and facilities. Cleveland Clinic also operates 13 family health centers, eight community hospitals, two affiliate hospitals, and a medical facility in Weston, Florida.

At the Cleveland Clinic Lerner Research Institute, hundreds of principal investigators, project scientists, research associates and postdoctoral fellows are involved in laboratory-based research. Total annual research expenditures exceed $150 million from federal agencies, non-federal societies and associations, and endowment funds. In an effort to bring research from bench to bedside, Cleveland Clinic physicians are involved in more than 2,400 clinical studies at any given time.

In September 2004, Cleveland Clinic Lerner College of Medicine of Case Western Reserve University opened and will graduate its first 32 students as physician-scientists in 2009.

For more details about Cleveland Clinic, visit clevelandclinic.org
Online Services

**eCleveland Clinic**

eCleveland Clinic uses state-of-the-art digital information systems to offer several services, including remote second opinions through a secure Web site to patients around the world; personalized medical record access for patients; patient treatment progress access for referring physicians (see below); and imaging interpretations by the Department of eRadiology's subspecialty trained academic radiologists. For more information, please visit eclevelandclinic.org.

**DrConnect**

**Online Access to Your Patient’s Treatment Progress**

Whether you are referring from near or far, our new eCleveland Clinic service, DrConnect, can streamline communication from Cleveland Clinic physicians to your office. This new online tool offers you secure access to your patient’s treatment progress at Cleveland Clinic. With one-click convenience, you can track your patient’s care using the secure DrConnect Web site. To establish a DrConnect account, visit eclevelandclinic.org or e-mail drconnect@ccf.org.

**MyConsult**

MyConsult Remote Second Medical Opinion is a secure, online service providing specialist consultations and remote second medical opinions for more than 600 life-threatening and life-altering diagnoses. MyConsult remote second medical opinion service allows you to gather information from nationally recognized specialists without the time and expense of travel. For more information, visit eclevelandclinic.org/myconsult, e-mail eclevelandclinic@ccf.org or call 800.223.2273, ext 43223.
Cleveland Clinic Contact Numbers

**How to Refer Patients**
24/7 Hospital Transfers or Physician Consults
800.553.5056

**General Information**
216.444.2200

**Hospital Patient Information**
216.444.2000

**Patient Appointments**
216.444.2273 or 800.223.2273

**Medical Concierge**
Complimentary assistance for out-of-state patients and families
800.223.2273, ext. 55580, or email: medicalconcierge@ccf.org

**International Center**
Complimentary assistance for international patients and families
216.444.6404 or visit www.clevelandclinic.org/ic

**Cleveland Clinic in Florida**
866.293.7866

www.clevelandclinic.org
Cleveland Clinic is determined to exceed the expectations of patients, families and referring physicians. In light of this goal, we are committed to providing accurate and timely information about our patient care. Through participation in national initiatives, we support transparent public reporting of healthcare quality data and participate in the following public reporting initiatives:

- Joint Commission Performance Measurement Initiative (www.qualitycheck.org)
- Centers for Medicare and Medicaid (CMS) Hospital Compare (www.hospitalcompare.hhs.gov)
- Leapfrog Group (www.leapfroggroup.org)
- Ohio Department of Health Service Reporting (www.odh.state.oh.us)

In addition, this publication was produced to assist patients and referring physicians in making informed decisions. To that end, information about care and services is provided, with a focus on outcomes of care. For more information, please visit the Cleveland Clinic Quality Web site at clevelandclinic.org/quality.