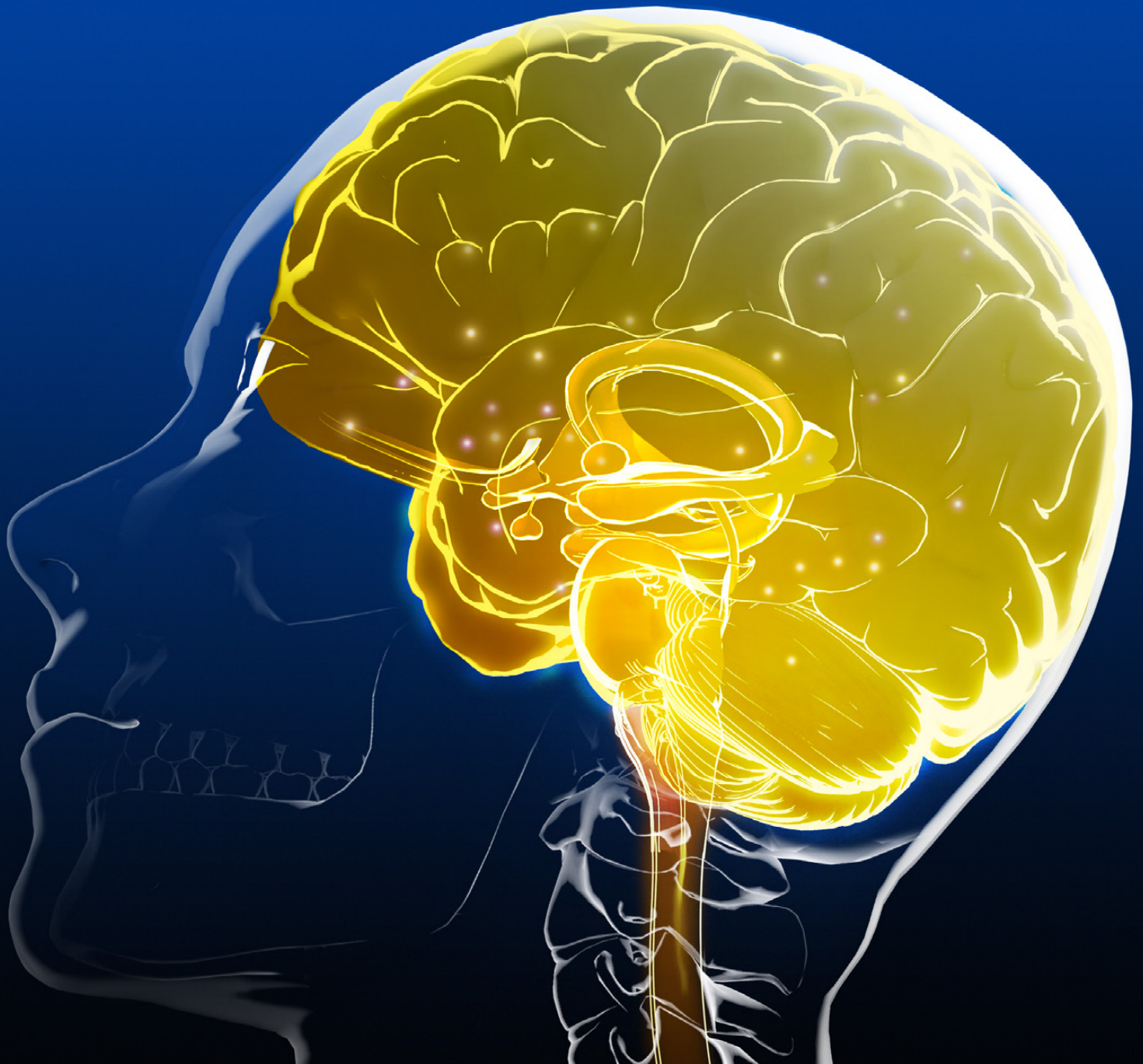




INFORMATION FOR CLINICIANS

Psychiatry and Psychology



Psychiatry and Psychology at Mayo Clinic

The Department of Psychiatry and Psychology plays an essential role in Mayo Clinic's mission of inspiring hope and contributing to health and well-being by providing the best care to every patient through integrated clinical practice, education, and research. Doctors from every medical specialty work together to care for patients at Mayo Clinic, the first and largest integrated not-for-profit group practice in the world.

At Mayo Clinic's campuses in Rochester, Minnesota; Jacksonville, Florida; and Phoenix/Scottsdale, Arizona; and across the upper Midwest in Mayo Clinic Health System, there are 3,700 physicians and scientists—including approximately 150 psychiatrists and psychologists—working toward common goals. These clinicians and researchers are supported by nearly 50,000 allied health staff, including several hundred who support the Department of Psychiatry and Psychology.

We invite you to learn more about our flagship programs at Mayo Clinic in Rochester, Minnesota—Mayo Clinic Psychiatric Hospital, Mayo Clinic Depression Center, Pain Rehabilitation Center, and Addiction Treatment Center—and our many other areas of excellence. Through these comprehensive, multidisciplinary programs, thousands of people with mental, addictive, and emotional disorders of all types find answers each year.

Everything we do in the Department of Psychiatry and Psychology—patient care, education, and research—is guided by one primary value. It's the same value that's guided Mayo Clinic for more than a century: The needs of the patient come first.

Mark A. Frye, MD

Chair

Department of Psychiatry and
Psychology

Bruce Sutor, MD

Chair, Clinical Practice Committee

Department of Psychiatry and
Psychology

Barbara K. Bruce, PhD, LP

Vice Chair, Clinical Practice Committee

Department of Psychiatry and
Psychology

Mayo Clinic in Rochester, Minnesota



Drs. Sutor, Frye, and Bruce

Mayo Clinic Psychiatric Hospital

Inpatient units in the Department of Psychiatry and Psychology are located in Mayo Clinic Psychiatric Hospital. These units evaluate and treat adults, adolescents, and children with a broad range of acute psychiatric conditions.

In the hospital, psychiatrists work in integrated teams with internists, psychologists, social workers, physical and occupational therapists, and other specialists to provide comprehensive, coordinated care tailored to the needs of each patient.

With Mayo Clinic clinicians from other departments available for consultations as needed, Mayo Clinic Psychiatric Hospital is well-suited to treat complex, challenging cases.

Psychiatric Acute Care Unit

This unit stabilizes and treats adults experiencing significant mental health crises, such as those who are suicidal, homicidal, or psychotic. After being stabilized and evaluated, patients receive individualized care, which may include the full range of somatic treatments, group psychotherapy, recreational therapy, and education about coping strategies, relapse prevention, and stress management.

Medical and Geriatric Psychiatry Unit

Admitted to this unit are adults with both medical and psychiatric conditions, as well as geriatric patients who need hospitalization for psychiatric issues—most commonly late-life mood and cognitive disorders. Treatment may include medication, recreational and relaxation therapy, and education about depression, anxiety, aging-related issues, and similar topics.

Mood Disorders Unit

The Mood Disorders Unit treats adults whose depression or bipolar illness is significantly affecting their functioning or safety. Intensive daily treatment is personalized to each patient and may include cognitive behavioral therapy, medications, family and group therapy, relaxation activities, electroconvulsive therapy (ECT), and transcranial magnetic stimulation (TMS).

Child, Adolescent, and Family Treatment Unit

In this unit, children and adolescents receive treatment for a wide variety of conditions, such as eating disorders, mood and adjustment disorders, anxiety, chronic illnesses, and self-injurious behavior. Treatment is family-based and multidisciplinary, with patients spending time with psychiatrists; psychologists; social workers; nurses; and occupational, physical, music, and recreational therapists.

Parents are strongly encouraged to participate in their child's care, as family therapy and one-on-one sessions with parents are important parts of the treatment plan.

BY THE NUMBERS

Patients treated
each year

Psychiatric
Acute Care Unit:

1,000+

Medical and Geriatric
Psychiatry Unit:

300+

Mood Disorders Unit:

600+



Research

To improve patient care, psychiatrists and their colleagues in Mayo Clinic Psychiatric Hospital are studying topics such as:

- ▶ Treatment of adult, adolescent, and child mood disorders, including a first-ever placebo-controlled trial investigating TMS for adolescents with treatment-resistant depression
- ▶ Suicide risk assessment
- ▶ Psychiatric disorders among medically ill and aging populations
- ▶ Brain imaging

Mayo Clinic Depression Center

Mayo Clinic Depression Center offers comprehensive, evidence-based evaluation and treatment for people with depression or bipolar disorder. Programs in the center span the spectrum of intensive inpatient treatment to outpatient consultations, with care provided by an integrated team of Mayo Clinic psychiatrists, psychologists, nurse practitioners, social workers, and other specialists with expertise in mood disorders.

Treatment in Mayo Clinic Depression Center, which is tailored to the needs of each patient, is based on an initial evaluation that may include self-rating scales, neuroimaging, genotyping, neuroendocrine and neurophysiological assessments, and other measures. A range of treatment options is potentially available, including electroconvulsive therapy (ECT), transcranial magnetic stimulation (TMS), or participation in a clinical trial.

The center also works closely with other areas in the Department of Psychiatry and Psychology and across Mayo Clinic to treat patients who have mood disorders associated with chronic pain, addictions, pregnancy or the postpartum period, obesity (pursuing bariatric surgery), Parkinson disease (pursuing deep brain stimulation), and other diseases.

Mood Disorders Unit

This 16-bed hospital-based inpatient unit provides treatment for adults whose depression or bipolar illness is significantly affecting their quality of life, function, or safety. Individualized, intensive treatment includes cognitive behavioral therapy, medications, family and group therapy, relaxation activities, and—when appropriate—ECT and TMS.

Mood Program

In this program, adults with a primary depressive or bipolar disorder undergo 2 weeks of full-day, group-based outpatient therapy. The Mood Program uses

Interpersonal Social Rhythm Therapy and adjunctive therapies, such as mindfulness techniques, physical movement experiences, behavioral activation, and psychoeducation, to help patients manage interpersonal issues and factors linked to their mood symptoms.

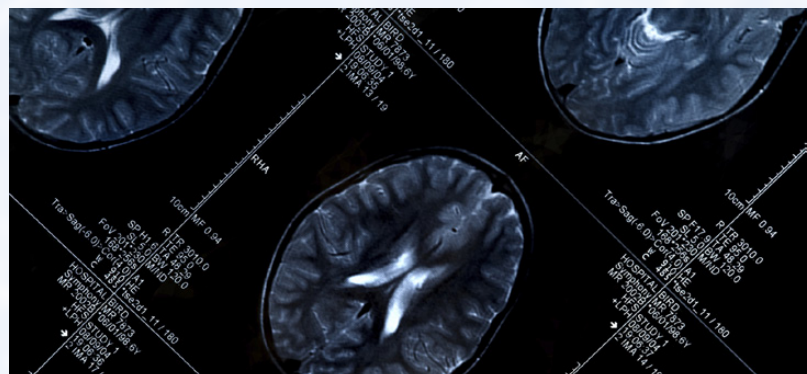
Mood Clinic

Outpatient evaluation and treatment for adults with treatment-resistant depression or bipolar disorder is available in the Mood Clinic. After an initial assessment and depending on a patient's needs, he or she may be referred to the Mood Disorders Unit or the 2-week Mood Program.

DIAMOND

Depression Improvement Across Minnesota, Offering a New Direction (DIAMOND) brings together a primary care provider, care manager, and consulting psychiatrist for adults who present with depression in primary care settings.

DIAMOND includes consistent patient assessments through the use of the Patient Health Questionnaire (PHQ-9), a registry that tracks patient response to treatment over time, a stepped-care approach to medication and therapy intensity, and a focus on relapse prevention.



BY THE NUMBERS

Patients treated in
Mayo Clinic Depression
Center in 2011:

900+



Mayo Clinic Depression Center
is a member of the National
Network of Depression Centers.

Research

Extensive research activities are closely integrated with the clinical programs in Mayo Clinic Depression Center. When appropriate, patients have opportunities to take part in studies.

- ▶ Adult and pediatric bipolar disorder biobank
- ▶ Neuromodulation (electroconvulsive therapy, transcranial magnetic stimulation, and deep brain stimulation)
- ▶ Brain imaging
- ▶ Pharmacogenomics
- ▶ Depression Improvement Across Minnesota, Offering a New Direction (DIAMOND)

Pain Rehabilitation Center

To assist people with noncancer-related chronic pain regain function and improve their quality of life, the Pain Rehabilitation Center at Mayo Clinic offers adult and pediatric outpatient programs.

These programs treat patients with a broad range of pain types, as well as those with medical and psychiatric complications. These may include chronic fatigue and nausea, cyclic vomiting, and autonomic disorders, such as postural orthostatic tachycardia syndrome (POTS).

Patients benefit from a team-based, interdisciplinary approach to treatment, as an anesthesiologist who specializes in pain medicine works with a diverse team of psychologists; physical, occupational, and recreational therapists; nurses; chemical wellness counselors; and other providers.

The center's programs use an array of treatment strategies, including skill-focused classes, physical and occupational therapy, stress management and relaxation techniques, and biofeedback. A goal for every patient in the adult and pediatric 3-week programs is the discontinuation of opioids for the treatment of noncancer-related pain.

Adult 3-week program

For adults whose chronic pain is causing significant declines in quality of life and functional abilities, the center offers a 3-week intensive hospital-based outpatient program. This group-based program gives patients new skills and techniques for pain management and physical reconditioning. In the months after completion, patients may attend a daylong aftercare program that reinforces skills and helps maintain progress.

Adult 2-day program

This 2-day program is for adults whose chronic pain is affecting their daily functioning and mood at home or at work. This program gives patients an overview of pain management skills and helps them learn which aspects of their pain they can control.

Pediatric 3-week program

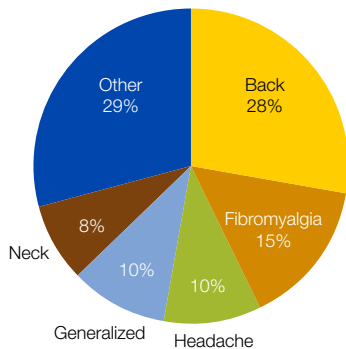
This program addresses the challenges faced by adolescents with any type of chronic pain. The goal of this intensive hospital-based outpatient program is to have patients back to school full-time at the end of the 3 weeks of treatment.

As an adolescent's pain also affects his or her family, this program includes daily parent involvement that focuses on successfully parenting a child with pain and reducing pain's impact on the family.

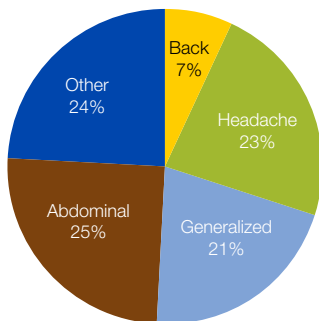


BY THE NUMBERS

Pain sites: Adult 3-week program



Pain sites: Pediatric 3-week program



Completion rates

Adult 3-week program:

85%

Pediatric 3-week program:

91%

Quick facts

Comprehensive care. With nearly 700 patients treated annually, Mayo Clinic has one of the largest adult and pediatric comprehensive pain rehabilitation programs in the country.

Team approach. Interdisciplinary treatment teams help chronic pain patients with complex medical and psychiatric problems regain functioning, no matter their age or pain site.

Positive outcomes. Longitudinal data show that most patients maintain the progress made during their programs and have significant decreases in pain severity and substantial improvements in physical functioning and mood.

Tapering of opioids. The center is one of the most skilled and experienced at tapering opioid analgesics, including high-dose opioids, and resolving medical complications due to polypharmacy. About 98% of adults and teens are successfully tapered off all opioids over their 3-week programs.

Continuing support. Family support and education, aftercare support groups, and support for individuals struggling with addiction help ensure rehabilitation gains are sustained.

Research

Research in the Pain Rehabilitation Center is focused on improving clinical outcomes, such as optimizing the treatment of chronic pain related to headaches, fibromyalgia, and abdominal pain. Other recent studies have explored:

- ▶ How smoking affects clinical outcomes
- ▶ The role of vitamin D in chronic pain
- ▶ Genomics and chronic pain
- ▶ Treatment of POTS in adolescents with chronic pain
- ▶ Cognitive functioning in teens with chronic pain

Addiction Treatment Center

Since 1972, Mayo Clinic has been treating people addicted to alcohol, illegal drugs, and prescription medications. Addiction treatment programs at Mayo Clinic take an individualized, holistic approach within a respectful, professional environment.

Patients are treated by multidisciplinary care teams that include addiction psychiatrists, licensed alcohol and drug counselors, licensed clinical social workers, registered nurses, and other specialists. This team approach ensures each patient receives comprehensive treatment that addresses his or her substance abuse, emotional health, and spiritual well-being.

Outpatient Addiction Program

The Outpatient Addiction Program offers half-day outpatient adult addiction treatment for 20 days, Monday through Friday. Some patients enter this program after an initial evaluation, while others transition into it after successfully completing the Intensive Addiction Program.

Treatments employed include a combination of individual counseling, group psychotherapy sessions, and educational and relapse prevention group sessions. After completing the Outpatient Addiction Program, patients may enter one of Mayo Clinic's continuing care programs.

Intensive Addiction Program

A 30-day residing program for adults age 18 and older, the Intensive Addiction Program provides treatment for alcoholism, drug addictions—including illegal drugs, narcotics, and other prescription medications—and comorbid mental health disorders.

Evidence-based medications, educational sessions, teaching of relapse prevention strategies, group-based treatments, recreational therapy, mindfulness and mind-body techniques, and other treatment modalities are used based on each patient's needs.

This program provides a supportive community for establishing abstinence while allowing considerable independence. All patients have single, private rooms with individual bathrooms and wireless Internet access.

Continuing care programs

To promote ongoing recovery, Mayo Clinic has a range of continuing care programs for patients who have completed residential or outpatient treatment and family members of people with alcohol or drug addictions. Continuing care programs, which vary in duration and meeting frequency, focus on mutual support during early recovery, development and practice of relapse prevention skills, and establishment of a sober lifestyle and support system.

“I've never been treated by doctors with so much respect, and I've never felt so optimistic about my disease before. It is manageable! No other place in the world would do this for a patient.”

— Mayo Clinic addiction treatment patient

“This is a healing place.”

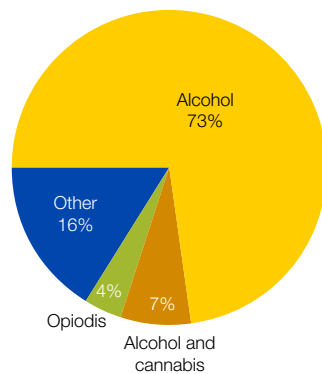
— Mayo Clinic addiction treatment patient

BY THE NUMBERS

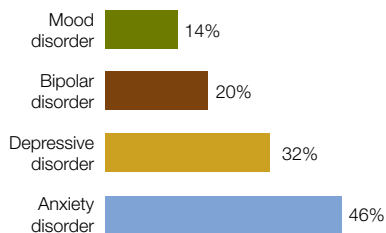
Patient-to-counselor
ratio:

4 to 1

Substance of choice



Comorbid mental
health diagnoses



Demographics

Average age: **42** for men,
44 for women

Age range:
18-75 years old

Males/females: **62%**
males, **38%** females



Research

Mayo Clinic psychiatrists, working in collaboration with colleagues in other areas at Mayo, are involved in a wide range of research related to addiction. As appropriate, patients have opportunities to participate in studies.

Areas of research include:

- ▶ Alcoholism and bipolar disorder
- ▶ Alcoholism and sleep disorders
- ▶ Glutamate and alcohol relapse
- ▶ Impact of alcohol cravings on relapse
- ▶ Negative emotions and alcohol cravings
- ▶ Pharmacogenomics of addiction

Areas of Excellence

In addition to its four flagship programs at Mayo Clinic in Rochester, Minnesota—Mayo Clinic Psychiatric Hospital, Mayo Clinic Depression Center, Pain Rehabilitation Center, and Addiction Treatment Center—the Department of Psychiatry and Psychology has many areas of excellence.

- ▶ Comprehensive multidisciplinary psychiatric assessments for adults, adolescents, and children
- ▶ ADHD Clinic
- ▶ Pediatric Anxiety Disorder Clinic
- ▶ Adolescent Eating Disorder Clinic
- ▶ Behavioral Medicine Program
- ▶ Neurocognitive Assessment and Treatment Program
 - Largest psychological assessment laboratory in the US
 - Largest faculty of board-certified psychologists in the US
 - Healthy Action to Benefit Independence and Thinking (HABIT), a mild cognitive impairment/early-stage dementia treatment program
 - Innovative e-technology programs for cognitively impaired elderly patients
 - Rehabilitative services for traumatic brain injury

Integrated Care

Collaboration with other Mayo Clinic specialties

Mayo Clinic psychiatrists and psychologists become part of the care team for Mayo patients whose psychiatric disorders exist alongside other diseases. Areas at Mayo Clinic with which the department works closely include:

- ▶ Transplant Center
- ▶ Consultation-Liaison Psychiatry Service
- ▶ Bariatric Surgery
- ▶ Behavioral Neurology
- ▶ Cancer Center
- ▶ Center for Sleep Medicine
- ▶ Children's Center
- ▶ Employee and Community Health
- ▶ Executive Health Program
- ▶ Family Medicine
- ▶ General Internal Medicine
- ▶ Nicotine Dependence Center
- ▶ Physical Medicine and Rehabilitation
- ▶ Wellness Center

Training Programs

Patient care at Mayo Clinic is supported by advanced programs in medical education and research. More than 3,000 residents, fellows, and students are training today across Mayo Clinic's three campuses.

Mayo School of Graduate Medical Education offers these psychiatry- and psychology-related training programs:

Residencies

- ▶ Adult Psychiatry Residency
- ▶ Child and Adolescent Psychiatry Residency

Fellowships

- ▶ Geriatric Psychiatry Fellowship
- ▶ Psychosomatic Medicine Fellowship
- ▶ Sleep Medicine Fellowship
- ▶ Addiction Psychiatry Fellowship
- ▶ Medical Psychology Fellowship, with specialty practice programs in:
 - Clinical Child Psychology
 - Clinical Health Psychology
 - Clinical Neuropsychology



2011 Highlights

Bipolar biobank will enable studies of genetic risk, treatment response

To identify and confirm genetic risk factors for bipolar disorder and study pharmacogenomic predictors of treatment response, Mayo Clinic is working to populate the Bipolar Disorder Biobank with biological samples and clinical data from 2,000 adults with bipolar I and II. Research enabled by the biobank may lead to early intervention for at-risk patients, as well as individualized treatment with fewer side effects.

The biobank also includes a pediatric arm, which will allow investigators to potentially identify genes that may contribute to pediatric bipolar disorder onset and examine the risks and benefits of various treatment options.

- Co-principal investigators of the Bipolar Disorder Biobank are Mark A. Frye, MD, chair of the Department of Psychiatry and Psychology at Mayo Clinic in Rochester, Minnesota, and Joanna M. Biernacka, PhD, a statistical geneticist in the Department of Health Sciences Research at Mayo Clinic in Rochester, Minnesota. Collaborators include Mayo Clinic's campuses in Arizona and Florida; Mayo Clinic Health System locations; the University of Minnesota in Minneapolis, Minnesota; and Lindner Center of Hope in Cincinnati, Ohio.

Repetitive TMS shows promise for adolescents with depression

A study led by Mayo Clinic psychiatrist Christopher A. Wall, MD, suggests that repetitive transcranial magnetic stimulation (TMS) is a safe, feasible, and potentially effective therapy for adolescents with treatment-resistant major depressive disorder. It's believed to have been the first rigorously standardized US trial of repetitive TMS for depressed adolescents. Findings were published in the *Journal of Clinical Psychiatry* in late 2011.



In a follow-up study, Dr Wall and his colleagues are using magnetic resonance spectroscopy to examine participants' brains—before repetitive TMS treatment, at the end of treatment, and 6 months after the final treatment—for evidence of changes in chemical signals. They have also received funding to compare TMS treatment with a placebo treatment in up to 50 depressed adolescents; this new trial is set to begin in August 2012.

In related studies, Mayo investigators will be using single- and paired-pulse TMS to study the neurophysiology of adolescent mood disorders. These studies focus on the functioning of the GABA and glutamate neurotransmitter systems in patients with depression and other mood disorders.

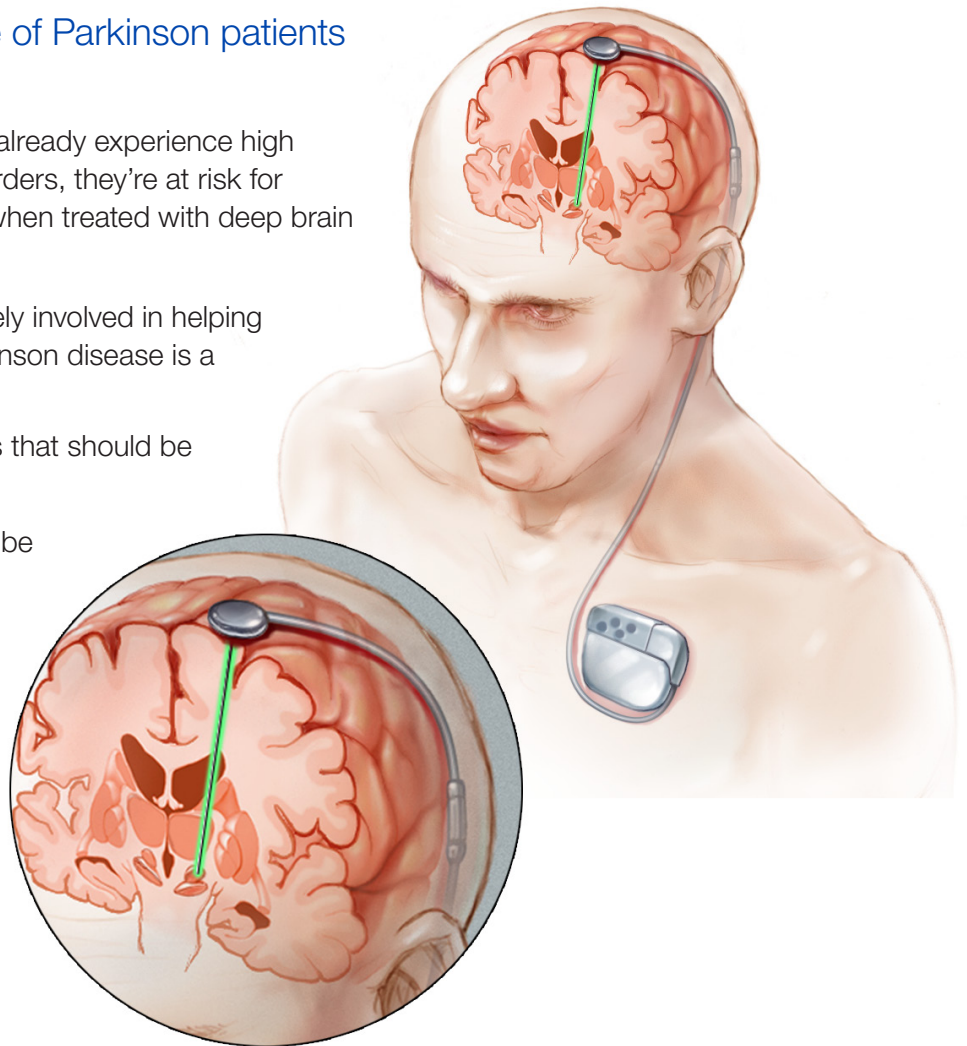
Psychiatrists contribute to care of Parkinson patients considering DBS

While patients with Parkinson disease already experience high rates of mood, sleep, and anxiety disorders, they're at risk for additional adverse psychiatric effects when treated with deep brain stimulation (DBS).

At Mayo Clinic, psychiatrists are uniquely involved in helping determine whether a patient with Parkinson disease is a candidate for DBS. This includes:

- ▶ Identifying any psychiatric conditions that should be addressed before DBS
- ▶ Determining which patients may not be able to tolerate or adhere to DBS treatments or required follow-up
- ▶ Educating and informing patients of potential psychiatric complications

Mayo Clinic is also beginning to track patients' Parkinson disease symptoms and moods to see if and how they are affected by DBS.



Innovative technology measures neurotransmitters in real-time

The DBS program at Mayo Clinic, led by Kendall H. Lee, MD, PhD, has developed the Wireless Instantaneous Neurotransmitter Concentration System (WINCS) to detect and measure levels of neurotransmitters released in the brain. WINCS is miniaturized, wireless, and computer-controlled.

The ability to measure brain chemicals may help researchers understand how DBS devices can modulate neuropsychiatric diseases, such as depression and alcoholism. Future applications of DBS may include treating eating disorders, pain, obsessive-compulsive disorders, and other psychiatric disorders.

Continuous Professional Development Opportunities

Each year, Mayo School of Continuous Professional Development presents a variety of psychiatry and psychology continuing education courses. AMA PRA Category 1 Credits are available for all these courses.

May 18-20, 2012

Mini-Fellowship in Primary Pediatric Psychopharmacology
Seattle, Washington

October 18-20, 2012

Acute Care Psychiatry Clinical Review
Swissôtel
Chicago, Illinois

May 30-June 1, 2013

Aeschi West
Sonnenalp Resort of Vail
Vail, Colorado

August 9-11, 2012

Psychiatric Genomics: Applications for Clinical Practice
Mayo Clinic
Rochester, Minnesota

January 17-19, 2013

Psychiatry in the Medical Setting
Arizona Biltmore Hotel
Phoenix, Arizona

October 31-November 2, 2013

Acute Care Psychiatry Clinical Review
Disney's Yacht and Beach Club Resorts
Orlando, Florida

August 16-18, 2012

Mini-Fellowship in Primary Pediatric Psychopharmacology
San Diego, California

April 25-26, 2013

Biological Frontiers of Addiction
Mayo Clinic
Rochester, Minnesota

Fall 2013

Approaches to Pediatric Depression and Related Disorders
Minneapolis, Minnesota

September 13-15, 2012

Mini-Fellowship in Primary Pediatric Psychopharmacology
Mayo Clinic
Rochester, Minnesota

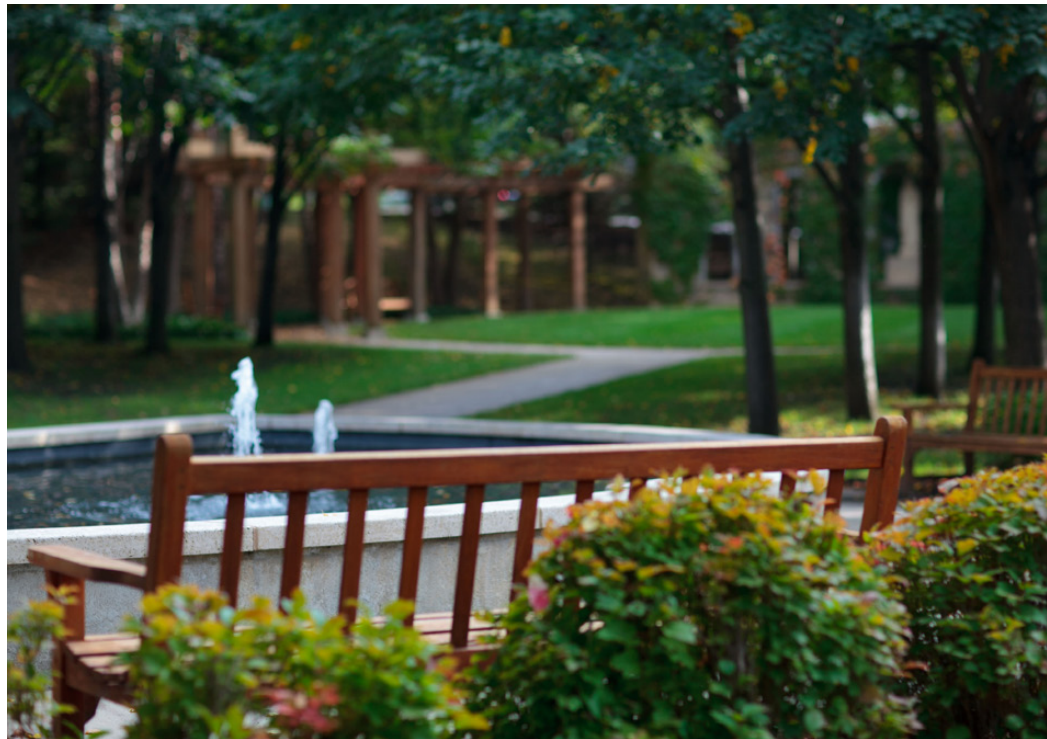
September 14, 2012

Clinical Management of Borderline Personality Disorder
Graves 601 Hotel
Minneapolis, Minnesota



Refer a Patient

The Department of Psychiatry and Psychology welcomes patient referrals to all its programs and for comprehensive outpatient psychiatric evaluations at Mayo Clinic in Rochester, Minnesota.



You may refer a patient in several ways:

Daytime

During business hours—8 am to 5 pm, Monday through Friday—contact the Psychiatry and Psychology Appointment Office at 507-266-5100.

Evenings and weekends

After business hours or for non-psychiatry-related referrals, contact the Referring Physician Office at 800-533-1564.

Emergencies

For emergency referrals, contact the Emergency Department at 507-255-2910.

