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

Bruce Sutor, MD
Chair, Clinical Practice

Barbara K. Bruce, PhD, LP
Vice Chair, Clinical Practice
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.

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 mood disorders, anxiety, self-injurious behavior, eating disorders, and psychosis. Treatment involves evidence-based psychosocial intervention and medication management. The focus of this unit is on wellness and improved functioning with a family-based and multidisciplinary treatment approach. Services are provided by psychiatrists, psychologists, social workers, nurses, dieticians; and occupational, physical, music, and recreational therapists.

Parent involvement in treatment is necessary, as family therapy and one-on-one sessions with parents are important treatment components.

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.
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

Quick Facts

- The Mayo Clinic Psychiatric Hospital is integrated into the largest medical/surgical center in the world
- Mayo Clinic psychiatrists are leaders in the clinical care of the medically ill patient from childhood through geriatrics
- Dedicated Psychiatric Hospitalists provide expert care to the most complex psychiatric and medical comorbidities
- The hospital serves as the highest level of treatment on a continuum of psychiatric services that range from tertiary consultation to outpatient evaluation to hospital outpatient programs to highly specialized inpatient units
- State of the Art expertise in evidence-based suicide research and assessment is built into the hospital practice
- The Mayo Clinic Psychiatric Hospital has its own Internal Medicine Consult Service residing in-house with expertise in the unique medical needs of psychiatric inpatients
- Psychiatrists throughout the hospital practice are clinical educators and researchers highlighted by the extensive portfolio of Continuing Professionalism Courses including:
  - Aeschi West – Suicide Assessment and Treatment
  - Approaches to Pediatric Depression and Related Conditions
  - Biological Frontiers of Addiction
  - Psychiatry in the Medical Setting
  - Acute Care Psychiatry Clinical Review
  - Clinical Management of Borderline Personality Disorder

BY THE NUMBERS

Patients treated each year
Psychiatric Acute Care Unit: 1,000+
Medical and Geriatric Psychiatry Unit: 300+
Mood Disorders Unit: 600+
Mayo Clinic Depression Center

ADULT AND PEDIATRIC SERVICES

Mayo Clinic Depression Center offers comprehensive, evidence-based evaluation and treatment for people with depression or bipolar disorder across the age spectrum. Programs in the center range from 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:

- Pharmacotherapy
- Behavioral activation
- Cognitive behavioral therapy
- Acceptance and commitment therapy
- Mindfulness
- Dialectic behavioral therapy
- Occupational therapy
- Recreational therapy
- Electroconvulsive therapy (ECT)
- Transcranial magnetic stimulation (TMS)
- 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.

Adult 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, a roadmap of treatment recommendations for referring physicians and mental health providers will be developed. Depending on a patient’s needs, he or she may be referred to the Mood Disorders Unit or the 2-week Mood Program.

Adult 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.

Adult 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.

Quick Facts

- Over 800 patients are evaluated annually with treatment resistant depression and bipolar disorder
- One of the largest bipolar biobanks in the world with rich clinical descriptive phenotyping setting the stage for future genomic research
Pediatric Mood Clinic

The Pediatric Mood Clinic is staffed by an expert team of child & adolescent psychiatrists, psychologists, social workers, and nurses. The clinic provides team-based care focused on diagnostic clarification and treatment recommendations regarding childhood mood disorder (e.g., depression, bipolar, cyclothymia, and dysthymic disorder).

This clinic is focused on teasing out and providing diagnostic clarification of mood disorders and other psychological difficulties through comprehensive and focused psychological evaluations. Treatment recommendations are offered to assist with ongoing psychiatric, academic, and social interventions.

Outpatient treatment includes:

- Adolescent Coping with Depression 12 –week evidence-based intervention for teens 14-18 living at home.

Pediatric Mood Program

The Child and Adolescent Integrated Mood Program is a two-week outpatient multidisciplinary group-based psychotherapy program. Treatment includes:

- Cognitive behavioral treatment
- Interpersonal therapy
- Behavioral activation
- Family-focused strategies
- Psychoeducation

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)
- Translational research laboratory, bridging basic science depression models with clinical research
Pain Rehabilitation Center
ADULT AND PEDIATRIC SERVICES

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 or chronic symptom that interferes with functioning such as chronic fatigue. Adolescent patients have generally missed a significant amount of school because of their symptoms. 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.

Pediatric 2-day program
The 2-day program for adolescents is designed to treat children with chronic pain and other chronic symptoms that have missed less than 30 days of school. These adolescents are struggling with significant symptoms but are still attempting to stay involved in school and other normal activities. The 2-day program helps teens and their parents to learn cognitive-behavioral skills to better manage symptoms and remain active.
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:

- The role of vitamin D in chronic pain
- Genomics and chronic pain with the development of the first Biobank for adolescents with chronic pain
- Treatment of POTS in adolescents with chronic pain
- Cognitive functioning in teens with chronic pain
- Parental distress and outcomes in treatment for adolescents with chronic symptoms.
Addition 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.

**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.

“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

**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.

**Extended Outpatient Program**

The Extended Outpatient Program is a step-down program for those who have completed a primary treatment program to establish abstinence, generally in a residential setting. The focus is on integrating treatment skills into daily sober living along with relapse prevention. The program offers half-day outpatient addiction services for 20 days, Monday through Friday.
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 offers comprehensive multidisciplinary psychiatric assessment for adults, adolescents, and children in:

**Child & Adolescent Attention Deficit Hyperactivity Disorder Clinic**
- Medication management
- Individual and group-based treatment
  - Parenting groups
  - Social skills groups
  - Parent child interaction therapy
  - Strengths oriented family therapy
  - Child behavior maintenance group

**Child Anxiety Disorder Clinic**
- Ages 18 and below
- OCD, GAD, social phobia, panic disorder, separation anxiety disorder
- Evidence-based treatment including
  - Exposure-based cognitive behavioral therapy in group and individual formats
  - Medication management
  - Full parental involvement
  - 5-Day intensive OCD outpatient treatment

**Adolescent Eating Disorder Program**
- Inpatient and outpatient treatment continuum
- Pre-adolescents (ages 8-12) with eating disorders
- Adolescents and young adults (ages 12-22)
- Diagnoses include: anorexia nervosa, bulimia nervosa, and eating disorders NOS
- Treatment of weight loss secondary to medical conditions (eg POTS, rumination syndrome, GI issues, transition from feeding tubes)
- Individual and group based treatment
  - Maudsley Family-Based Therapy
  - Behavioral Interventions to restore healthy nutrition and weight
  - Cognitive behavioral therapy
  - Nutritional therapy
  - Medical care and management including medications as needed
  - Strong parent involvement in re-feeding and weight maintenance
Adult Consultative Programs

- Short courses of psychiatric and psychological care for medically ill patients
- Targeting psychological and behavioral factors in somatic symptoms

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 Behavioral Health

An innovative health care delivery model that integrates Primary Care and the Department of Psychiatry and Psychology. The goal of this new program is to provide more cost-effective, evidence-based behavioral health care services while improving behavioral health outcomes. Services include:

- Diagnostic assessment
- Acute medication management
- Short-term psychotherapy for depression and anxiety
- Care coordination
- Clinical input on patients with behavioral health need
- Assistance with referrals to internal and external behavioral health resources for long-term 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

“I left feeling ‘heard’ and look forward to implementing an action plan back home”

— Mayo Clinic Depression Center patient
Education

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

http://www.mayo.edu/msgme/

Mayo School of Continuous Professional Development

The Department of Psychiatry and Psychology at Mayo Clinic provides the highest quality continuing medical education for clinicians to translate into care of their patients. Our educational offerings are built around master educators/clinicians providing relevant and evidence-based CME for attendees to use in their individual practices.

All of our programs are based on key principles. First, our education should be engaging, highly interactive, and relevant to your individual practice. Education provided should be case-based and draw on principles gained from clinical research and our practice. Our courses utilize a combination of intense case-based sessions along with brief and highly focused larger lectures. Each course is unique, but our intent and philosophy is to bring learners and master educators/clinicians together to improve patient care.

For more detailed information regarding each of the courses, please go to our Psych CME wedpage or Facebook for more details.

http://www.mayo.edu/cme/psychiatry-and-psychology
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 began 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.
Our Translational Neuroscience Laboratory provides the space and expertise for members of the Department of Psychiatry & Psychology to conduct cutting-edge research in translational neuroscience, genomic psychiatry, biomarker discovery and psychosomatic medicine using the latest cellular, molecular and genetic technologies. Biomarker discovery has already had an immense impact upon the prevention and treatment of disease, but remains in its relative infancy in psychiatry. Our research combines multiple scientific approaches to bring new insight into the causes of psychiatric illness and factors mediating individual treatment outcomes. Our ‘bench to bedside’ and ‘bedside to bench’ framework is helping us to better understand the interplay between genetic and environmental risk factors so that we can provide more targeted treatments for our patients.

Recent research projects have focused on defining the role of genetic and environmental factors in depression, bipolar disorder, and alcoholism, and identifying epigenetic mechanisms implicated in these disorders. The physiological effect of stress in mental and physical illness and aging is another area of intense study, and integrates the laboratory with the broader Clinic. The primary goal of our research is to individualize patient care, develop new interventions and tailor currently available treatments in ways not possible previously. In addition to this, an important aspect of our work is the training and development of researchers and faculty in psychiatry and psychology who are interested in developing their skills in preclinical and bench-top research.
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.

**Web address**
http://www.mayoclinic.org/psychiatry-psychology/