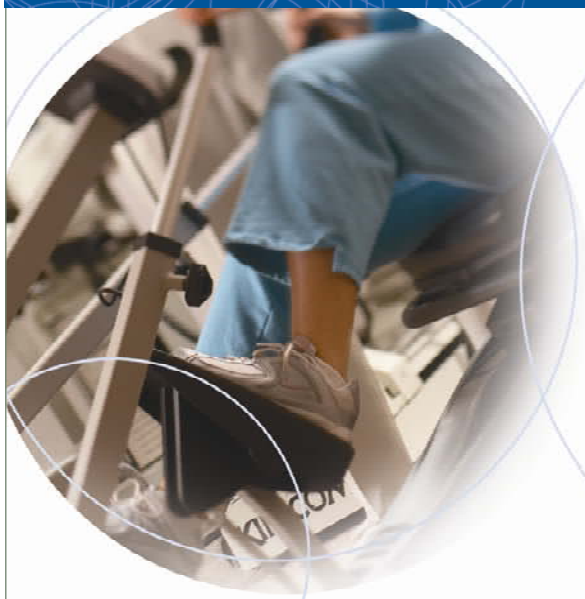

About 21st Century Rehab

21st Century Rehab is dedicated to you, and in providing the utmost of patient-centered care. Whether you need intensive rehabilitation after a sport injury or surgery, or occupational health services for your employees, or quick recovery from back or neck pain, you'll find the services you need at 21st Century Rehab. We look forward to becoming a resource for your good health...now and after your therapy is over.

Our staff of physical, occupational, and speech therapists and certified athletic trainers provides treatment for the following injuries:

- Arm, Wrist or Hand Problems
- Carpal Tunnel Syndrome
- Pain and/or Dysfunction Related to Arthritis
- Balance Impairments or Vertigo
- Post-Surgical Rehabilitation
- Athletic Injuries
- Occupational Health (Consultation, Risk Reduction Services and Treatment of Work-Related Injuries)
- Back, Neck and Shoulder Pain
- Hip, Knee, Ankle or Foot Pain
- TMJ Disorders, Headaches, or Facial Pain

LOCATIONS

www.21stcenturyrehab.com

Corporate Office
P.O. Box 461
Nevada, IA 50201
Ph: 515-382-3366
Fax: 515-382-1576
Toll Free: 1-877-21REHAB

612 8th Street SW
Altoona, IA 50009
Ph: 515-967-4124
Fax: 515-967-9094

270 SW 1st Street
Suite H
Grimes, IA 50111
Ph: 515-986-9667
Fax: 515-986-9642

Indianola Physical Therapy
1507 N. 1st Street
Indianola, IA 50125
Ph: 515-961-7435
Fax: 515-961-7436

Dallas County Hospital
610 Tenth Street
Perry, IA 50220
Ph: 515-465-7672
Fax: 515-465-7655

Hamilton Hospital
800 Ohio Street
Webster City, IA 50595
Ph: 515-832-7735
Fax: 515-832-9420

Story County Medical Center
630 Sixth Street
Nevada, IA 50201
Ph: 515-382-2543
Fax: 515-382-7171
Toll Free: 1-888-522-9820

21st CENTURY REHAB
Work well. Play well. Live well.

KNEE PAIN

Taking Care of Your Knees

The knee is a relatively simple joint that is required to do a complicated job…to provide flexible mobility while bearing considerable weight. While walking down the street, our knees bear three to five times our body weight. When climbing stairs, that force can multiply to seven times our body weight.

That force is borne by compact structures of bone and cartilage, supported by muscles and ligaments. When the knee is overstressed in sports or in everyday activities, those structures can break down – and knee injury occurs.

The Knee Joint

The knee joint is really two joints: the patello-femoral joint, where the large bone of the upper leg connects with the knee cap; and the tibio-femoral joint, where the upper leg bone hinges with the large bone of the lower leg.

These bones are held in place by a system of passive restraints, the fibrous ligaments that hold the joint in place. The joint is further supported by muscle tissue, a system of dynamic restraints. When conditioned and strengthened, these muscles apply forces that help hold the joint together.

The menisci are pads of cartilage that further stabilize the bones, and provide shock absorbency.

Anatomy of a "Bad Knee"

Injuries to the knee can be grouped into two categories: acute macro-traumatic, or injuries that result from a single event; and micro-traumatic, repetitive injuries that occur over time.

ACUTE MACRO-TRAUMATIC INJURY

An example of this type of injury is a rupture or tear of a ligament, part of the passive restraint system of the knee. Perhaps most common among these injuries is rupture of the anterior cruciate ligament, a condition usually caused by over-rotation of the joint. This type of injury can occur in both sports and occupations where there is excessive twisting.

MICRO-TRAUMATIC INJURY

Micro-trauma due to overstress of normal tissue. Instead of damage from one event, the knee suffers many repetitive injuries over a period of time. Another name for this condition is *overuse syndrome*.

Micro-trauma often occurs with a sudden increase in exercise level, such as when a runner increases distance or a tennis player plays extra sets.

Treatment of Knee Injuries

There is, unfortunately, no quick cure for a knee injury. Physical therapy plays a key role in treating and rehabilitating the knee, but *you* and your attitude toward recovery are the biggest factor in achieving a successful outcome.

PHYSICAL THERAPY

Your licensed physical therapist will design a phased treatment plan with two main components:

1. Maximum protection. A series of exercises designed to help motion. Activities in this phase might include water walking, swimming, leg presses, and mini-squats.

2. *Return to function and maintenance.* An exercise sequence to restore strength. These activities are a functional progression, that is, a gradual return to normal activities using exercises that simulate the knee stresses of your normal activities.

SURGERY

Advances in surgical approaches to the knee joint have made repair to these structures practical in many cases. *Arthroscopic* surgery employs small incisions to access the joint. The surgeon views the damaged area through an arthroscope, hence the name. These procedures are quick, involve a minimum of discomfort, and enjoy an excellent success rate. Such surgery is indicated when:

- Repair is needed for ruptured ligaments or torn menisci, or
- A level of disability accompanies injury, even after physical therapy and other conservative measures have been tried.

How Physical Therapy Can Help Your Knee Problems

One way to think about your physical therapist's role is as a coach – a caregiver and mentor to lead you through a course of action toward achieving your goals for your comfort and lifestyle.

It's important to recognize that you, the patient, are the most important participant in the healing and prevention process. They are, after all, your knees. Whatever treatment you receive from others, the treatment you give them, day in and day out, is just as important.

Whether you're currently suffering from a knee injury, or trying to avoid one, your physical therapist has the skills to help. It all starts with a careful evaluation.

Evaluation. Physical therapy places great emphasis on this process. Your therapist will take the time to talk with you and perform a thorough physical evaluation to identify your knee condition or predisposing factors.

Therapy. Your physical therapist will plan a treatment regimen suited to your individual condition, and begin working to restore motion and muscular performance.

Teaching. You don't need to become an "expert" to avoid or overcome injury, but you may need to learn some new habits. Your physical therapist will help you continue therapy on your own, with a home program of exercises designed to fit your needs.

Aftercare. The goal of physical therapy is to return you to normal life as soon as possible, with the skills you need to prevent reinjury. You probably won't need to visit your therapist again unless you have another injury or pain