



Labell & Associates
physical therapy

Are you ready to get back
into the game of life?

Objectives

- Motivate each patient to reach potential
- Exceed expectations of referring physician
- Prevent or decrease disability/dysfunction
- Create independence
 - Use of exercise to control symptoms
- Have Fun!

Disability

- Disability from low back pain in the US increased 168% between 1971 and 1981. US National Center for Health Statistics
- Social Security Disability "Awards" increased 2,800% for low back pain between 1957 and 1976. Frymoyer, Adult Spine 1991
- Incidence of back injuries found to be stable. Fordyce, Vital and Health Statistics 1992
- US prevalence of back and/or neck pain was 31% in 2002 (low back pain: 34 million, neck pain: 9 million, back and neck pain: 19 million) Strine, Hootman, Arthritis Rheum. 2007



Labell PT History

- Based on training by and research from New England Baptist Hospital Spine Center
- 10+ years of experience treating wide range of disability and pain caused by different back and orthopedic issues
- 2+ years successfully treating patients on the North Shore and beyond

Bryan Labell, MSPT

- Schooling at Mass General Hospital's Institute of Health Professions
- Internship at Beth Israel Deaconess Medical Center
- Training at New England Baptist Hospital's Spine Center
- 10+ years experience in treating spine dysfunction and disease processes

Shayne Gaffney, PTA

- Graduate of North Shore Community College
- Training in New England Baptist Spine Center program
- Associate of Labell PT since 2007
- 1+ year of experience successfully treating spine dysfunction and disease processes

Sandi Smith

- Office Manager since January 2008
- Oversees relationships with doctors, patients and billing company

Who is appropriate for Labell PT?

- All patients from teens to seniors with acute thru chronic disability from back pain
- Pre and post surgical conditioning
- Spinal Stenosis
- Chronic low back, thorasic, or neck pain
- Work related injuries and motor vehicle accidents
- Osteopenia and osteoporosis
- All orthopedic and sport related injuries

Focus of Program

- Impairment focused
 - Give patients tools to fix impairments
 - Indirectly patients have much less pain
 - Direct result is patients have...
 - Increased flexibility
 - Increased strength
 - Increased function
 - Able to get back into the game of life!

Evaluation Testing

- Oswestry Questionnaire
- ROM measurements using inclinometer
- Back Extension maximal strength test
- Lumbar and Cervical maximal lifting test
- Cardiovascular endurance testing

Flexibility Testing- Inclinator

Cervical

(norms in degrees)

- Flexion (70)
- Extension (70)
- Rotation (90)
- Sidebending (40-45)

Lumbar

(norms in degrees)

- Flexion (110-120)
- Extension (35)
- Straight Leg Raise (90)
- Sidebending (35)

Strength/Lifting Testing

Back Extension Machine

- Normal is 100-120% of ideal body weight
- Consideration for medical history, age, level of function

Lifting Capacity

- Lumbar Normal is 40% Back Extension for males and 30% for females
- Cervical Normal is 30% Back extension for males and 20% for females

No Danger



This is a safe
lifting station
to prepare you
for the good
things in life!

Cardiovascular Endurance Testing

- Modified treadmill test
- 2.5 MPH
- 0-2 Minutes 0% Incline
- 2-4 Minutes 1% Incline
- 4-6 Minutes 3% Incline
 - Patient's program based on results of testing
 - Progress shown by decreased heart rate and/or perceived exertion with same workload

Evaluation Discussion

- Patients arrive with pain focused attention and focus on disability
- Challenge made to patients to change their focus and mindset away from pain
- Explain that impairments will be used as guidelines for treatment
- Motivate patient to become active participant in helping themselves
- Begin to remove fear of movement and exercise by explaining safety of program

2nd Session

- Review messages learned at evaluation
- Strength and Lifting Capacity Testing
- Continue to put patient at ease with making necessary changes to their bodies
 - Circulatory
 - Neurological
 - Physical
 - Psychological/Behavioral

Typical Pattern of Pain

- Increases initially secondary to attempt to increase flexibility and beginning strengthening exercises
- Decreases after 1-3 weeks as body becomes accustomed to treatment and patient normalizes flexibility
- Remains decreased as patient's muscle strength and endurance is normalized

Stretching Class

- Initial twenty minutes of a session
- Patients may stretch on the floor or sitting pending their age, disability, and fear
- Patients are instructed and refined in stretches that match the ROM tested
- Patients encouraged to adapt the stretches into their daily routine like brushing teeth

Treatment Phase (sessions 3-8)

- Patients have various levels of fear and trust that need to be addressed
- Begin strength and endurance training (muscle education) based on back extension and lifting tests
- Continued major focus on flexibility training and home program compliance
- Begin to address cardiovascular training

Re-evaluation (visit 6,7, or 8)

- Assess changes made in flexibility and strength, and cardio endurance
- Alter HEP and training accordingly
- Assess patient's compliance with HEP and motivation for reaching long term goals

Training Phase (visit 9 to D/C)

- Focus now on normalizing strength and reaching highest potential
- Continued progress of cardiovascular training
- Add plyometric training if appropriate
- Assure independence and provide education on continued progress on patient's own in gym or at home

Team Meetings

- PT, PTA and/or PT aides meet to discuss patient's progress and plan of care
- Patient's care plan altered based on meeting and feedback from referring doctor

Goals of Labell PT

- Normalize ROM
- Normalize strength
- Increase cardiovascular endurance
- Decreased fear of exercise and real life functions (seen in Oswestry questionnaire)
- Cognitive shift that his/her performance in physical therapy can be transformed into real life
- Independence of discharge program (program continued at home or at a gym)

Average Outcomes

“Exercise as a Treatment for Chronic Low Back Pain” Rainville, Hartigan, et al. The Spine Journal 2004

- Flexibility, strength, lifting increased by 30 to 80%
- Pain reduced by 30 to 54% (9 to 20% control)
- Disability improved by 25 to 56%
- Depression decreased
- Improvements maintained at one year F/U

Other Uses of Aggressive Therapy

Labell PT lower extremity/knee protocol

- Patello-femoral dysfunction
- Chronic hip, knee, ankle pain

Labell PT upper extremity/shoulder protocol

- Impingement syndrome
- Chronic rotator cuff syndrome
- Chronic elbow injuries

Other topics of Interest

- Additional uses of resistance training
- Resistance training for the senior
- Resistance training for the preteen
- Resistance training for the teen
- Safety of modified aggressive therapy with acute and sub-acute injuries

Questions and Discussion