#### Aquatic Rehab & Wellness Center



# A Breakthrough Aquatic Therapy for Frozen Shoulder Syndrome



CSM 2014
Platform: Aquatic Physical Therapy
Las Vegas, NV
February 5, 2014

Jessica Huss, DPT, CCI
VP Education; Aquatics Section, APTA
AquaStretch Instructor

## Physical Therapy AquaStretch<sup>TM</sup> Demand



AquaStretch<sup>TM</sup> Rehab



- Wellness
- Pre-surgical
- Non-trauma chronic pain
- (i.e. fibromyalgia, Frozen Shoulder)
  - 100/400 last new referrals



"...significant arthritic conditions... not responsive to usual therapy...[A/S] able to relieve sharp burning radicular pain down my arms ...I was impressed and actually astonished that your therapy could result in this significant improvement." --Glenn Nudleman M.D.

Midwest Internal Medicine LHC, AZ

80% less painful!



2x more effective at restoring flexibility



"AquaStretch™ is a major breakthrough in pain management" F. Fuller Royal M.D.

Medical Director, Nevada Clinic



# Manual Aquatic Therapy















George Eversaul, A.P. AquaStretch Creator









Immediately reduces chronic aches and pains > 60% in 1<sup>st</sup> Session!



**Creates Profound Relaxation Reduces muscle tension** Reduces post exercise soreness

AquaStretch

# What is AquaStretch<sup>TM</sup>?









## Case Study History





- ❖ 49 y.o. Male; R Frozen Shoulder referred to AquaStretch™ by friends & personal Trainer
- Insidious onset 8/2011
- PMH: Type I diabetes
- Main complaint: Cannot throw a ball with his son



## Case Study History



#### Initial AquaStretch™ Visit 4/19/2013

- \* R Shoulder ROM Measurements
  - ightharpoonup Shoulder Flex = 160°
  - Shoulder Abd = 150°
  - ❖ Shoulder ER = 55<sup>0</sup>
  - ❖ Shoulder IR = Riliac, Mid sacrum



#### **Previous Medical Intervention**

- Insidious Onset 8/2011
- Cortisone Injection (x2)
  - **\$** 5/2012 & 11/2012
- Traditional Land and Aquatic PT
  - **\*** 7/2012-2/2013
    - ❖ 1-2x/week for 7 months
- Pain narcotics
  - **❖** 1 mo.
- **❖** NSAIDS
  - PRN





#### **Previous Medical Intervention**



# Results % Perceived Improvement

Cortisone Injection "10%"

Traditional Land and Aquatic PT \*"15%"

\*All perceived gains lost with 2 mo. tx inactivity (before 1st A/S Wellness visit)

# Case Study: <u>AquaStretch<sup>TM</sup> (A/S)</u> Intervention







#### Initial AquaStretch<sup>TM</sup> Visit

4/19/2013

❖ SPADI 45% Pain

- 60% Disability
- **Total Score 53%**

- Shoulder Pain Score
- 18/28

- A/S Intervention
  - 2-3x/week for 4 weeks
  - Total A/S visits = 9

# Case Study: AquaStretch<sup>TM</sup> (A/S) Outcomes

Initial AquaStretch<sup>TM</sup> Visit 4/19/2013

#### 3<sup>rd</sup> Visit 4/26

Upon arrival ER 65<sup>0</sup>

After (30') session ER 79°

Reports 85% improved

#### 4th-9th Visit

Emphasis on last residual ER discomfort

#### 5/8/13 (6<sup>th</sup> visit)

IR resolved; T12

Very pleased with ability to throw ball

#### 5/17/13 (9th visit) Last Session!

Demonstrated Full ROM; No c/o pain





# Case Study: AquaStretch<sup>TM</sup> Discussion





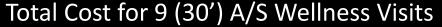
A/S Intervention: 4/19/2013-5/17/13

5/17/13 SPADI score: 0 pain 0 disability

Shoulder Pain Score 7 "Cured"

\*100% Resolution of symptoms after the 9<sup>th</sup> session!

Less than 1 month



\$40/visit X 9 Visits = \$360

4.5 total hours of our time

1.5 year history chronic pain resolved







# AquaStretch<sup>TM</sup> appears to be clinically significant for approximately 60% of the total rehab population to restore flexibility and reduce chronic pain.



Jessica Huss, PT, DPT, CCI
AquaStretch Instructor
Aquatic Rehab & Wellness Center
Lake Havasu City, AZ



### AquaStretch<sup>TM</sup> Research Opportunities



#### 1. Health Cost Savings Studies

- Less office visits, Prescriptions for pain/sleep meds
- Physical medicine services, Radiology (MRI), Postpone surgeries

#### 2. Comparative Effectiveness (i.e., PCORI)

Low Back Pain, Fibromyalgia, Idiopathic pain, Pre-surgical

#### 3. Sports Performance

- Faster rehab from minor injuries, less muscle soreness,
   restore flexibility lost from prior injuries, surgeries, or over-training
- Motivation for unfit people to start and maintain new exercise programs

#### 4. Fascial Adhesion Theory

 Excessive calcifications in fascia may restrict motion and may cause nerve impingement pain.

## AquaStretch<sup>TM</sup>: Research Opportunities

#### **Chronic Pain Relief Studies**



Idiopathic Pain



Eliminate extreme fascial restrictions in 4-6 sessions (i.e., Frozen shoulder)



Maintain pain reductions with A/S every 4-8 weeks

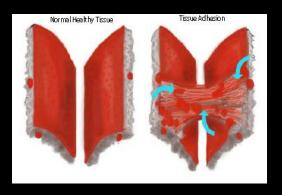
Fibromyalgia

60-80% Less Pain with only 1-2 A/S sessions

Lower Back Pain

## AquaStretch<sup>TM</sup> Research Opportunities

Fascial Adhesion Theory: Why A/S Works









- 1. Ultrasound or MRI: Fibromyalgia Patients
  - > ~100 at my practice, almost 50 at UNLV
  - A/S one arm/leg, re-image both arms/legs
  - Compare calcium density and correlate with patient pain changes



- 2. Ultrasound or MRI: IT Bands and/or injured ankles
  - Pre/post A/S calcium density and goniometer tests

## AquaStretch<sup>TM</sup>: Research Opportunities



#### Fitness & Sports Performance Studies

**AquaStretch Fitness Benefits** 

- Restore flexibility lost from prior injuries/surgeries
- Decrease Muscle Soreness from intensive training
- Compress training with faster recovery
- Help "Get Loose" before competitions
- Motivate Unfit People to start and maintain exercise
- Relieve pre-existing chronic pain and reduce muscle soreness



Lori Sherlock: Assistant Professor, WVU School of Medicine

 35 "uninjured" subjects had increases in average flexibility of all lower extremities tested, 4 statistically significant



#### Aquatic Rehab & Wellness Center



# A Breakthrough Aquatic Therapy for Frozen Shoulder Syndrome



**Questions?** 

Jessica Huss, DPT, CCI VP Education; Aquatics Section, APTA AquaStretch Instructor