



Head, Neck & Jaw

*Southwest Florida's most-trusted certified
cranio-facial team*



Dr. Matthew Harkness
Cranio Facial Rehab Specialist

Cranio-Facial conditions we treat:

- Headaches
- Lock jaw: unable to perform dental work
- Post-Op Orthognathic Surgery
- Tension in your shoulders and neck
- Pain with movement
- Lack of sleep due to snoring or pain
- Nasal Congestion
- Ringing or fullness in the ears
- Tooth pain without evidence of infection/pathology
- Anxiety
- Chronic fatigue
- Clicking, popping or grating sounds in jaw

Easy Referral!



FAX Script,
Demographics and
Insurance info to
239-242-0076



Allied staff calls patient
to schedule



Allied Physical Therapy Wellness Community
is conveniently located near Pine Island Road
and Chiquita Blvd in Cape Coral



 alliedpt.com

 (239) 242-0070

 @alliedptcapecoral

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Jaw and Facial Orthognathic Surgical Rehabilitation

Prevalence/Epidemiology of CF pain:

- Estimated that 40% of the \$80 billion spent annually on the treatment of chronic pain is due to CF pain (Fricton JR, et al., 2000)
- Primarily a problem of young and middle aged adults
- Affecting 10% population 18yrs>
- Women outnumber men 2:1
- 85-90% of the treatment population
- 50-75% of the population has signs of TMD (clicking, asymmetrical opening etc)
- 20-25% have symptoms
- 3-4% seek treatment (Gray RJ et al 1994)



Pre-hab Program:

8 weeks prior to surgery – Developing and customizing with surgeon

The Pre-Hab Program is vital to establishing confidence and trust between patient and therapist. Patient becomes engaged in the rehab process, and understands more about what to expect after surgery. Benefits:

- Compliance with pre- and post-surgical instruction
- Compliance with pre- and post-surgical rehabilitation
- Facilitates optimal communication between interdisciplinary team and family
- Allows for best possible outcome for patient
- Increases patient's trust with medical team
- Increases referrals and effective outcomes for our community

The Team

Communication as a multidisciplinary team is vital in providing the best possible outcome. This often includes:

- Maxillofacial surgeon
- Dentist
- Orthodontist
- Patient
- Patient's family: Spouse, Parent, Child
- Physical Therapist: Cranio-Facial Specialist

Pre-hab Program: Outline

1. Instruction of diaphragmatic breathing and relaxation techniques to reduce patient anxiety.
2. How to eliminate the urge to yawn or sneeze
3. Proper rest position of tongue
4. Instruction of pure mandibular rotation exercise to control and reduce hypermobility of condyle
5. Training facial musculature with exercises such as squinting and lip pursing, saying vowels, as patient will be instructed to perform these after surgery
6. Stretching and dissension of the lips to increase flexibility
7. Recording of baseline mandibular ROM
Measurements for maximal mouth opening, lateral excursion and protrusion
8. Modalities: US, E-stim for pain and inflammation reduction
9. Performing inhibition Manual therapy to cervical, upper cervical, and intra oral musculature
10. Long axis distraction to TMJ joint
11. Stabilization training in 3 dimensions:
Using a hyperbolic device resisting movements for 6 seconds (isometric)
 - a. Lateral excursion
 - b. Elevation
 - c. Depression
 - d. Protrusion
 - e. Retrusion
12. Hydration of lips and skin: Using lip balm, and facial lotion to reduce soft tissue facial injury during surgery
13. Instruction in postural correction exercises in order to restore malar bone and sternal alignment
14. Scapular stabilization exercises with resistive band
15. Instruction of manual lymphatic drainage to reduce production of lymphedema
 - a. Moving hands from face to anterior neck



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WELLNESS COMMUNITY™
Get back to what you love



Post-Surgical Rehab Program: Outline

Physical Therapists trained in the craniofacial specialty play an important role in educating oral and maxillofacial surgeons on the benefits of PT after surgical intervention.

Austin BD, Supe, SM. The role of physical therapy in recovery after temporomandibular joint surgery. The Journal of Oral and Maxillofacial surgery 1993; 51:495-498

The patient will be able to restore optimal and normal function with faster recovery times and optimal joint function and quality of life.

Outpatient Physical Therapy: *4 weeks post-operative*

- When mandible is no longer immobilized
- Goal is to increase ROM, strength, motor control and proper behaviors
- A splint fitted by the surgeon or dentist to aid in restoring occlusion



Rehab Timeline

Most orthognathic surgeries take a minimum of six hours, and rehabilitation and return to optimal function takes up to 12 months.

Green CS. The etiology of temporomandibular disorders: implications for treatment. Journal of Orofacial Pain 2001; 15:93-105



See our Online Resources!



Scan here to access
our **TMJ/TMD
Healthcare
Provider's Toolkit**

See patient testimonials, download fact sheets, see tutorial videos and more.

Week 1 to 3

1. Edema and pain reduction
 - a. Ice massage
 - b. Tens
 - c. Ice pack
2. Therapeutic Mobility Training (4-6x's hold 1-2 sec)
 - a. PROM/AROM with rubber tubing or tongue depressor
 - i. Lateral excursion
 - ii. Condylar rotation
 - b. Gradually increase the diameter of tubing or hyperboloid for lateral excursion
3. Inhibition/manual therapy (4-6x's hold 1-2 sec)
 - a. Grade 1 long axis distraction TMJ
 - i. Reduce irritation to joint
 - ii. Collagen fiber alignment
 - iii. Promote the return pattern of the disc
4. Condyle Pure Rotation (without translation)
 - a. 1-10mm
 - i. Promotes muscle relaxation
 - ii. Reducing reflexive contractions mandibular elevators
 - iii. Tension is reduced at the intrajoint terminals where the nerves innervate the muscles
 - iv. Instruction of patient to avoid large patterns of movement which may lead to hyper mobility and reduction of blood supply

Weeks 3 to 12

- Dry needling and modalities: Reduce tone and tension of muscles
- Joint manipulation / mobilization: Restore movement
- Neuromuscular re-education exercises
- Scapular strengthening exercises