



# SCLERODERMA REHABILITATION: JB APPROACH THROUGH POSTURE AND REMOBILISATION

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# SSc diagnosis



- When a person gets SSc diagnosis, it becomes his companion in life.
- If we know how our body functions and how the diagnosis can develop, with everyday care we can prevent and reduce symptoms and thus, keep the quality of life.
- The goal of this presentation is to focus on the facts that affect our chances for a happier life.



- ❑ SSc affects different body systems.
- ❑ The most visible changes are seen in the musculoskeletal system and on the face.
- ❑ These areas demand our full attention and everyday treatment.
- ❑ It is very important to raise awareness of the symptoms that will worsen the course of the underlying disease.
- ❑ Check yourself for these symptoms as you follow this presentation!
- ❑ Look for a therapist to help you deal with problems you find.

# What can we do?



- In general:
  - ▣ mobility exercises for musculoskeletal system
  - ▣ anti-inflammatory therapeutic procedures (physical therapy)
  
- Agenses we can use:
  - ▣ water
  - ▣ heat-cool
  - ▣ electrotherapy
  - ▣ magnetotherapy
  - ▣ laser
  - ▣ ultrasound
  - ▣ light therapy

# Jadranka Brozd approach



- Derived from a 2-year experience with different SSc patients:
- Assessment and education
- Posture
  - Whole body, with emphasis on the face
- Mobility exercises (stretching)
- Self-treatments
- Osteopathic approach: mobilisation and remobilisation

# Posture



- The basic position of the body that allows all the movements of the body and good function of the organs.
- By looking in the mirror one should recognize the loss of the basic, good posture of the body.

A good posture



# Positions we need to look at



- 1. maleol - inner side of ankles
- 2. patella - the bone that protects the stifles
- 3. prominent upper edge of the pelvis - SIAS
- 4. front upper side of the upper arm - just below the AC joint
- 5. main facial features: mouth, eyes, eyebrows, ears
- 6. mobility of temporomandibular joint (TMJ)

# 1. Maleol – inner side of ankles



- If the medial maleol of the right foot goes to the central line of the body and down, we have an unstable ankle = valgus position.
- Whole body adjusts to this position with other joint positions and muscle tension.
- The consequence is tension (blockade) of the joint or joint instability, which causes inadequate movement and bad position of the whole body.





## 2. Patella - the bone that protects the stifles

- Good basic position is in the central line of the leg, not blocked high, in muscle-quardriceps.



- This symptom in the ankle (maleol) is often followed by a shift of the knee inward and forward.

### 3. Prominent upper edge of the pelvis:

## SIAS



- We can palpate SIAS as a bone prominence on the front of the pelvis.
- Bad position: pelvis goes forward and down.
- This is the base for painful changes in the areas of the spine- lumbal pain with the loss of physiologic lordosis with the possibly of ishialgia, scoliosis, and thoracic kyphosis.



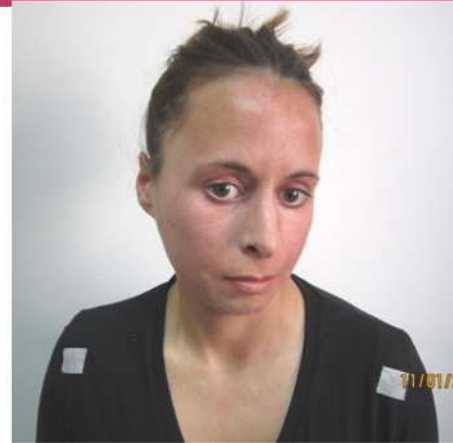
## 4. Front upper side of the upper arm



- Good position: shoulders at the same height and upper arms turned out – recognized by thumb forward.
- To compensate for the imbalance, the left shoulder moves forward and down, the arm rotates inward and we get a bad position of the entire shoulder girdle, which is the base for all movements of hands, and also the head.



## 5. Main facial features: mouth, eyes, eyebrows, ears

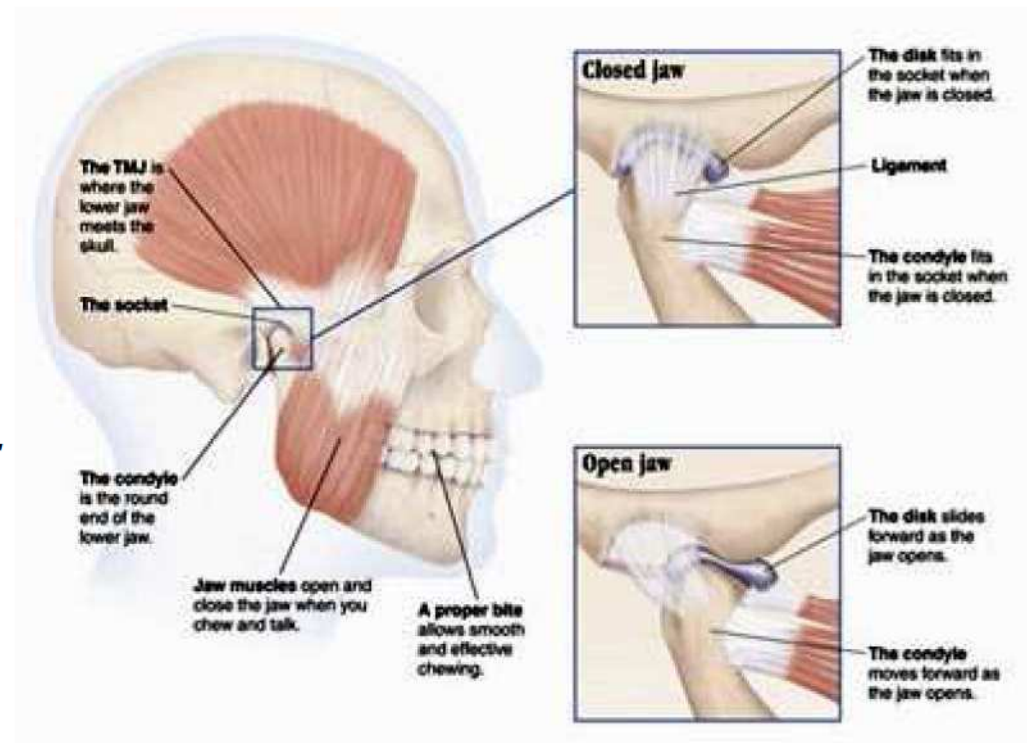


- Both sides of the face should be of the same height and equidistant from the shoulder girdle.
- Due to the shortening of the muscles on the left side, head is pulled to the left and face turns to the right, so we have all facial features on the left side positioned below the plane.

# 6. Mobility of TMJ



- If temporomandibular joint functions properly, it enables the lower jaw movement for feeding and speech functions.
- Should move in all directions.
- Besides the main collagenosis, which affects the facial tissues, tension appears in the muscles that pull the lower jaw out of its base in the temporal bone.



# BAD POSITIONS = BAD POSTURE



- These pictures show the importance of a good postural position and mobility for a proper function of opening the mouth and facial treatments.

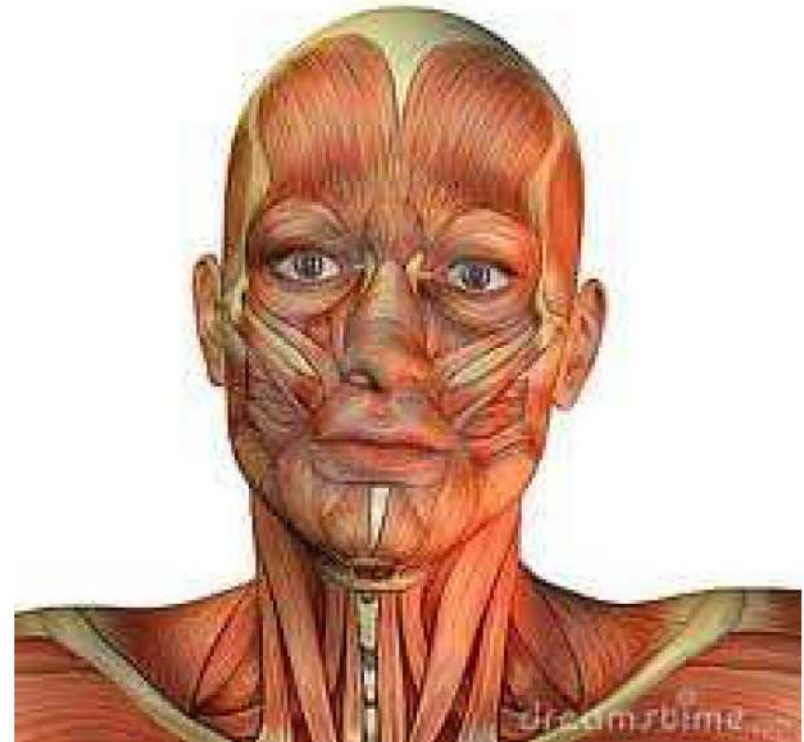


- **The body has self-healing ability and it should be given the opportunity to do so.**

# FACE



- The result of a good basic posture is the structure of the skin, subcutaneous tissue, muscles, joints and fascia, allowing facial expression and feeding.
- A good function influences our appearance.
- The accumulation of collagen, inflammatory processes and scars acquired throughout the life as a result of SSc, reduce mobility of all the structures and functions.



# Our everyday task



One can maintain the mobility and function of this very important part of the body with:

- daily care
- therapeutic procedures
- exercises
  
- **Our face is what people know, like, percieve, understand and love us by.**



# FUNCTION DETERMINES THE STRUCTURE AND STRUCTURE DETERMINES THE FUNCTION



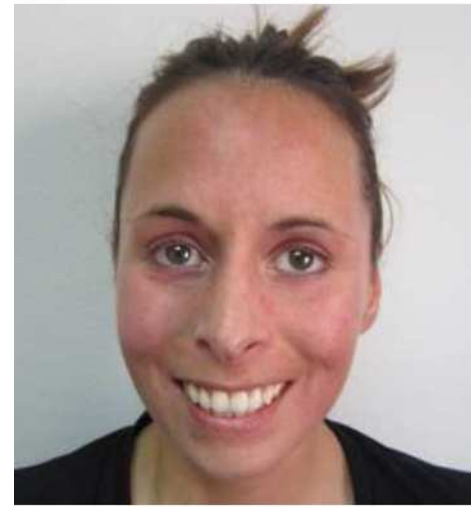
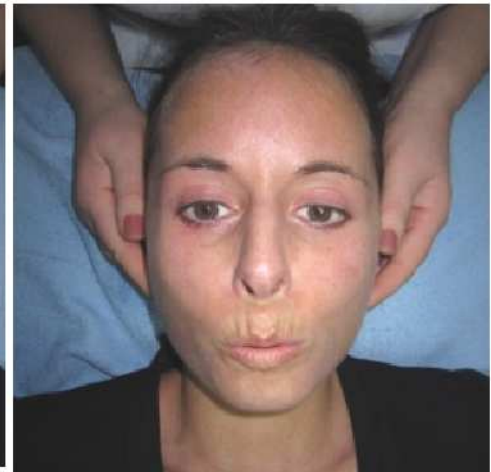
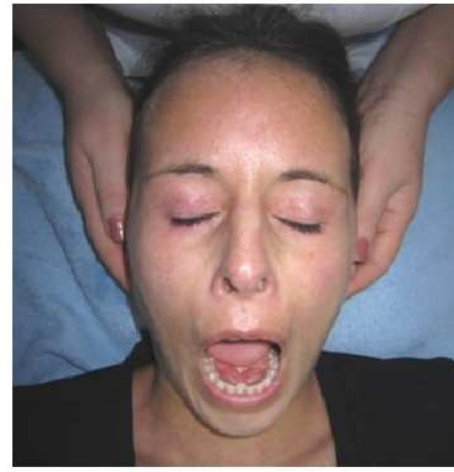
- Function is a movement.
- In this context, everything that is able to move reflects health; Blocking the movement changes the structure of the tissue
- The most shortened muscles due to the accumulation of collagen and reduced mobility are the **chewing muscles**
- Overexertion of chewing muscles blocks the joint of the lower jaw, which no longer lies in its place; it causes arthrotic changes:
  - damaged cartilage of the joints and discs,
  - dislocation of the joint (backwards) outside of its positions.

# How to help myself?



- Tissue preparation
  - ▣ We can use HEAT (warm towels, steam, mask)
- Massage, mobilization, and stretching exercises can keep the elasticity of tissue.
- techniques:  
self-massage, decompaction (osteopathy) and lymphatic drainage

# Basic tests for functions of the face



# Face: massage

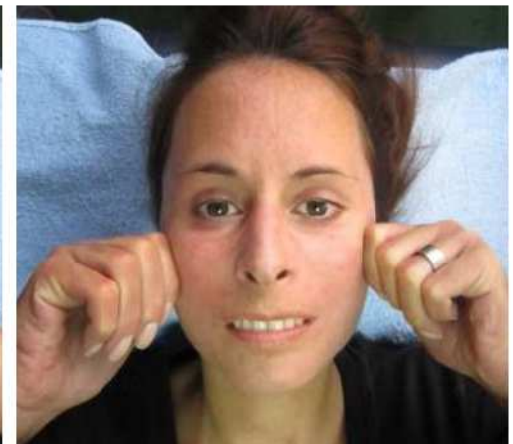
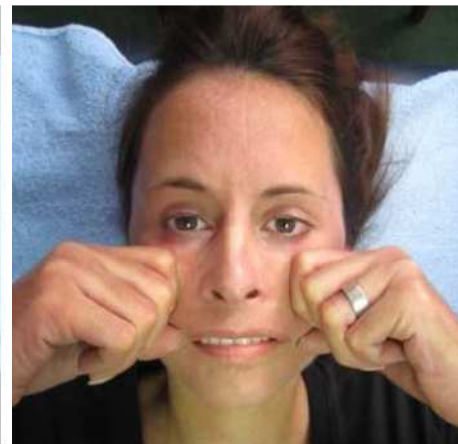
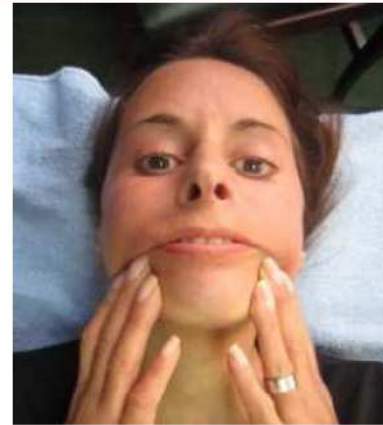


- Daily use of massage after hygiene applying moisturizer or oil.
- We must include the eyebrows, forehead, area around the eyes, face with cheeks from nose to ears, the area around the mouth, chin to ears and neck to the collar bones.



- The face loses nasolabial fold from the corners of the mouth and nostrils and acts unnaturally tight.
- Often the skin on the cheekbones is very taut and thin, which causes cracking and sores in the capillaries or larger.
- **Our goal is to preserve the ability of closing the lips over the teeth, smiling, fully opening the mouth as in the widest yawn, raising the eyebrows and keeping forehead expression, even with the wide open mouth.**

# Everyday self-treatment

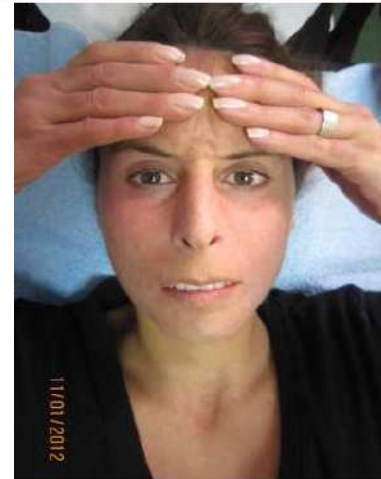
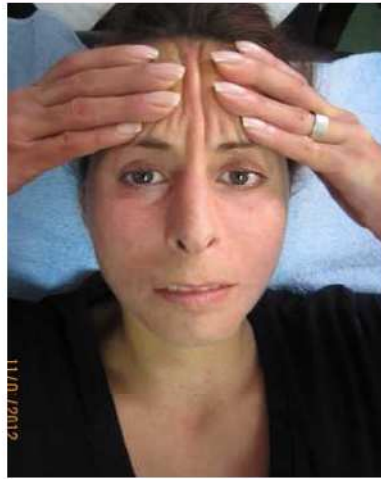


# Face: mobilization



- Carried out at the same locations as massage with a technique that affects deeper structures – subcutaneous area, fascia and muscles; not just the skin.
- Done by the fingertips of both hands or palms (tenar), depending on the function of hands.
- We grasp the tissue with fingers and stretch it the way that tissue leads - we do mobilization in all directions. (osteopathic approach).
- Focus on the tissue in the process of release and relaxation. Our goal is to soften the tissue under the fingers, to heat and stretch it.
- When this is done by a therapist, the technique is called **remobilization**.

# Self-mobilization



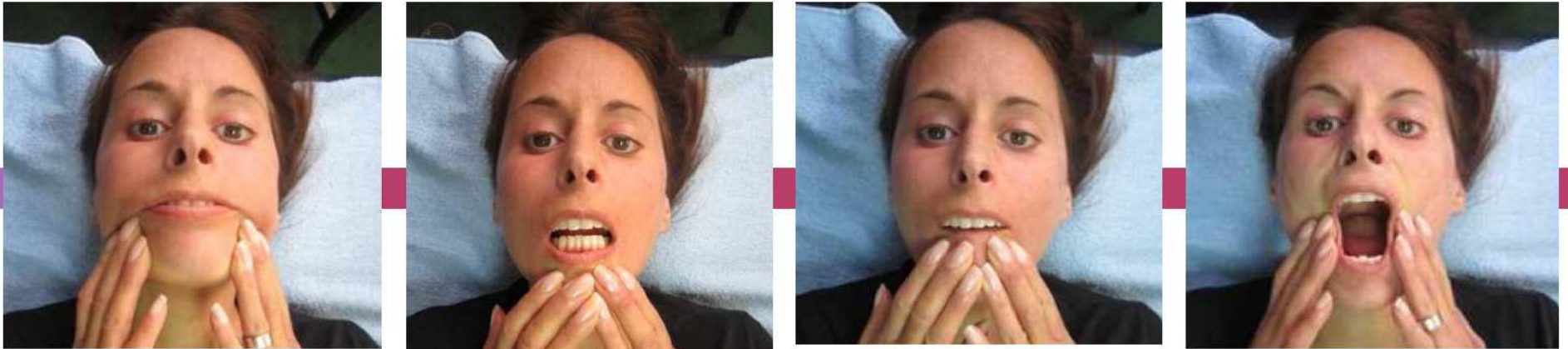


# Mouth: Mobilization technique for muscule orbicularis oris



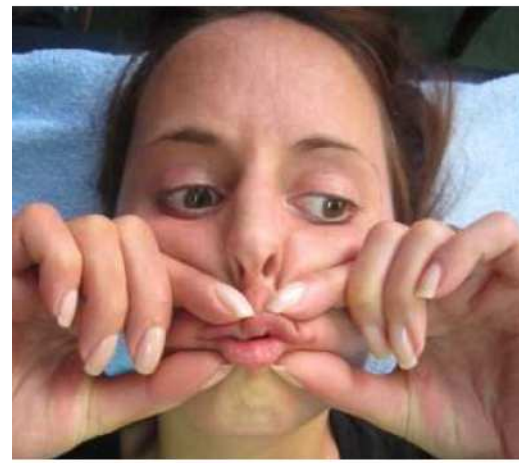
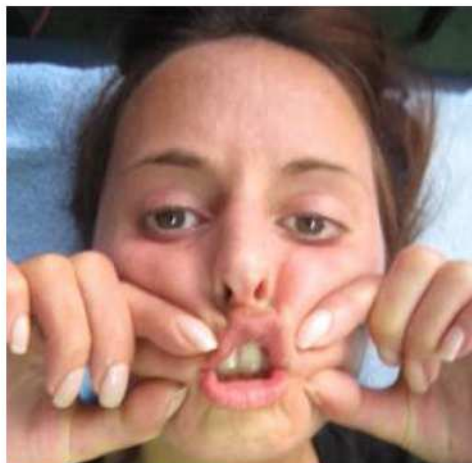
This circular muscle enables us to close the lips and whistle

- can lose its elasticity and restrict mouth opening
- often pulled aside by muscle buccinator preventing mouth opening



Massage has 3 goals:

- treating orbicularis oris muscle (the whole circle of the muscles)
- treating lips
- treating the tissue in the cheeks

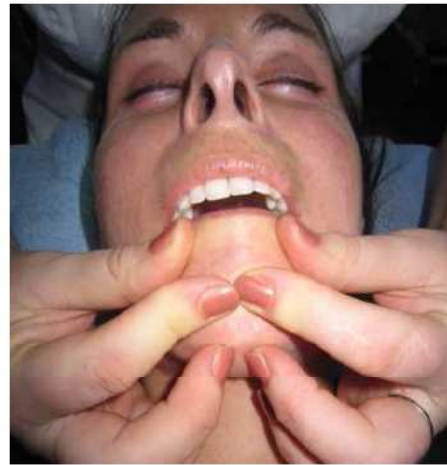


# Mobility exercises for mouth



- Mobility of the tongue is often limited.
- Tongue should be able to move and roll in all directions.
- Moving tongue in all directions and pressing the face can also release the tension.
- FILM-tongue

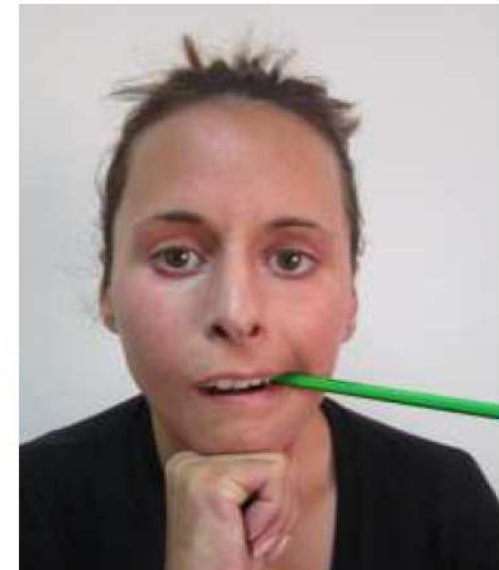
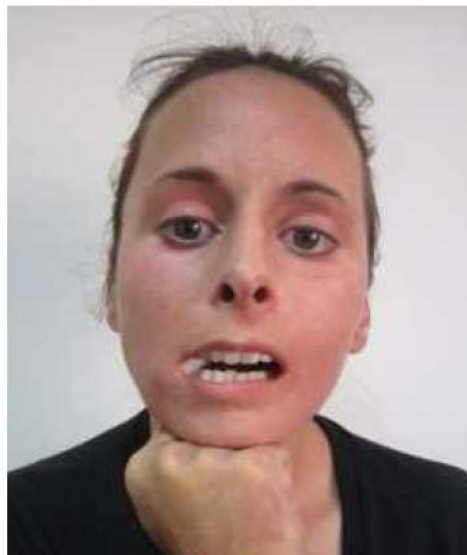
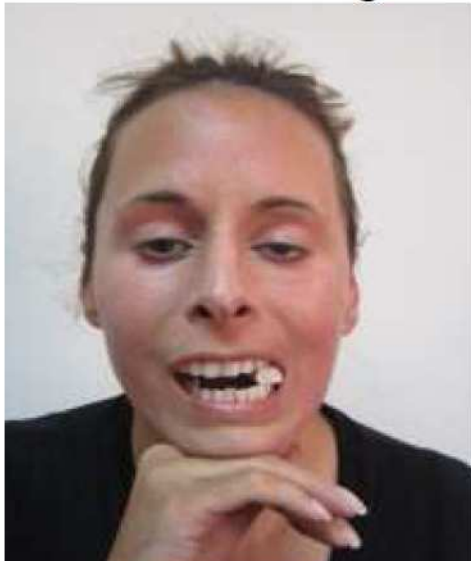
# Remobilization: done by a therapist



# Releasing TMJ tension



- We should be able to open the mouth at least two fingers wide (spatula test).
- Necessary to achieve greater mobility of all structures, especially in the TMJ when moving the lower jaw.



# Osteopathy of TMJ



# Forehead and Scalp



- ❑ This area is connecting fascia that can block the muscle movement and even reduce already limited expression.
- ❑ It is necessary to regularly massage it in all directions.
- ❑ Include the scalp in the massage, particularly the nuchal muscles.
- ❑ Exercises like raising eyebrows and frowning should be done every time after massage and remobilisation.
- ❑ Correction of the head protraction (head mobilization exercises) FILM

# NECK: front and side parts of shoulders to the lower jaw



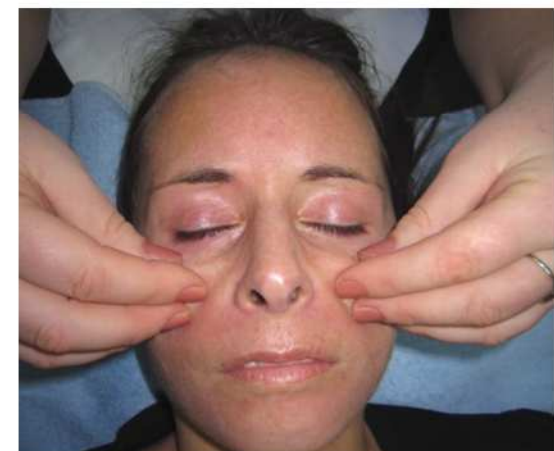
- If Platysma is shortened and the lower jaw can not be pulled up, we can not retract the lower lip over the lower teeth.
- Therefore, mobilizing the lower lip and the tissue underneath it is very important for drinking and some other functions.
- Stretching the chin up and sideways and pulling shoulders back and down.
- FILM - stretching the neck in 3 directions



# Area around the eyes: remobilization



- The goal is to reduce tension and to mobilize.
- We treat the forehead, eyebrows, eyes and cheekbones.



# CONCLUSION



- Exercises: musculo-skeletal treatments (keeping open postural positions)
  - Facial muscles
- Self-massage
- Remobilisation
- Osteopathy for the whole body
- Specific physical therapy treatments according to symptoms
- Respiratory treatments
- Biofeedback – learn to control breathing, heart rate variability and body temperature – what is well learned becomes spontaneous
- Relaxation techniques
- Lifestyle changes – daily exercise, nutrition, pace of life
- Laughter training – reduces the tension and improves the mood
- Psychotherapy or counseling from the beginning of diagnosis for the patient and his/her family

# Important



- Individual approach – different clinical picture
- Prevention of symptoms – keeping SSc under control
- Optimal frequency and intensity of therapy – do some everyday, but don't force anything
- Constant work on posture, prevention and treatment (ball)
- Rest (energy conservation)
- Faith and hope to cope with your situation
- Teamwork: physicians with therapeutic specialists like psychologists, physical and occupational therapists
- Support of family and friends

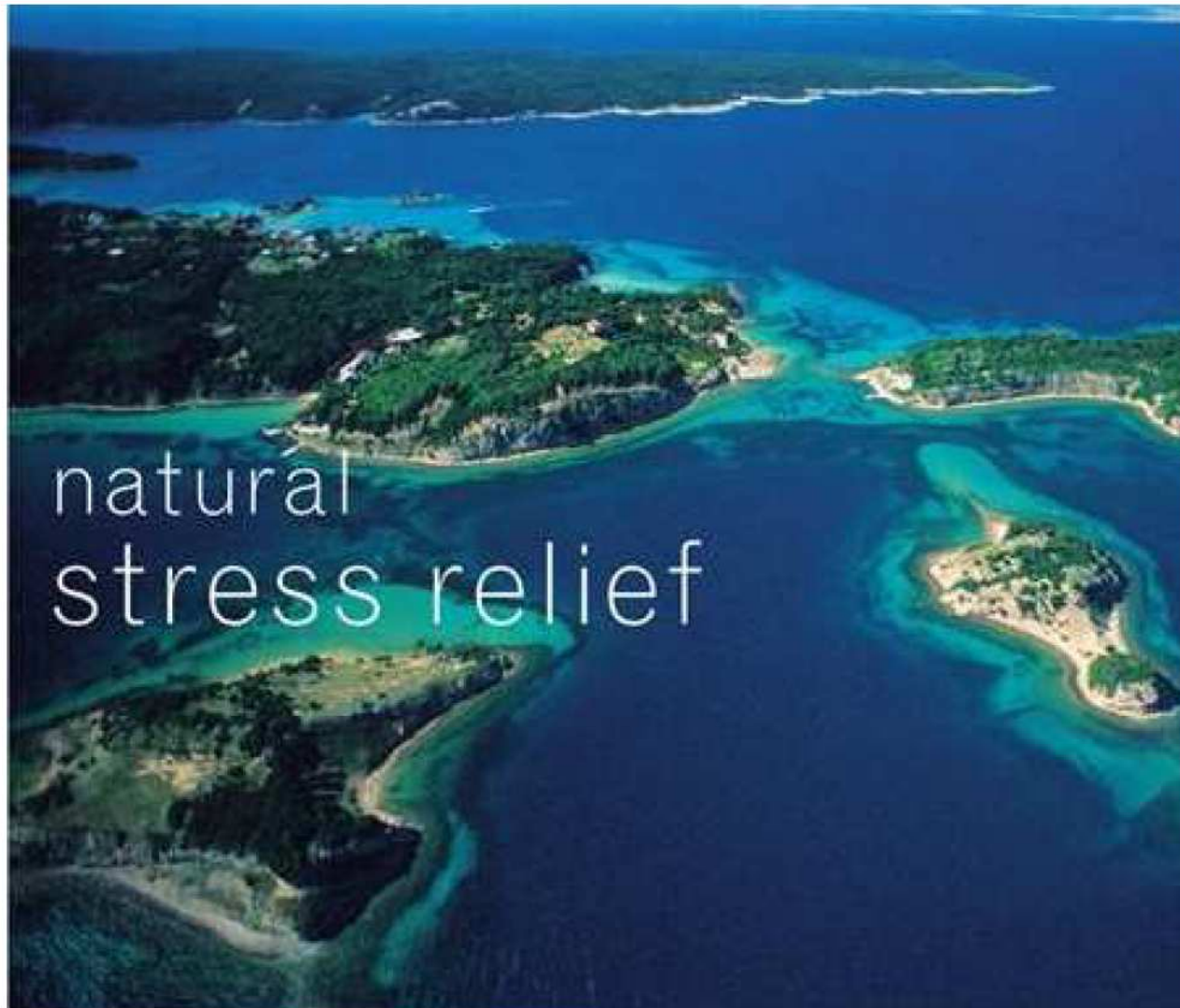


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**Exercise, smile and work on  
yourself.**

**Live your life to the fullest!**

# THANK YOU!



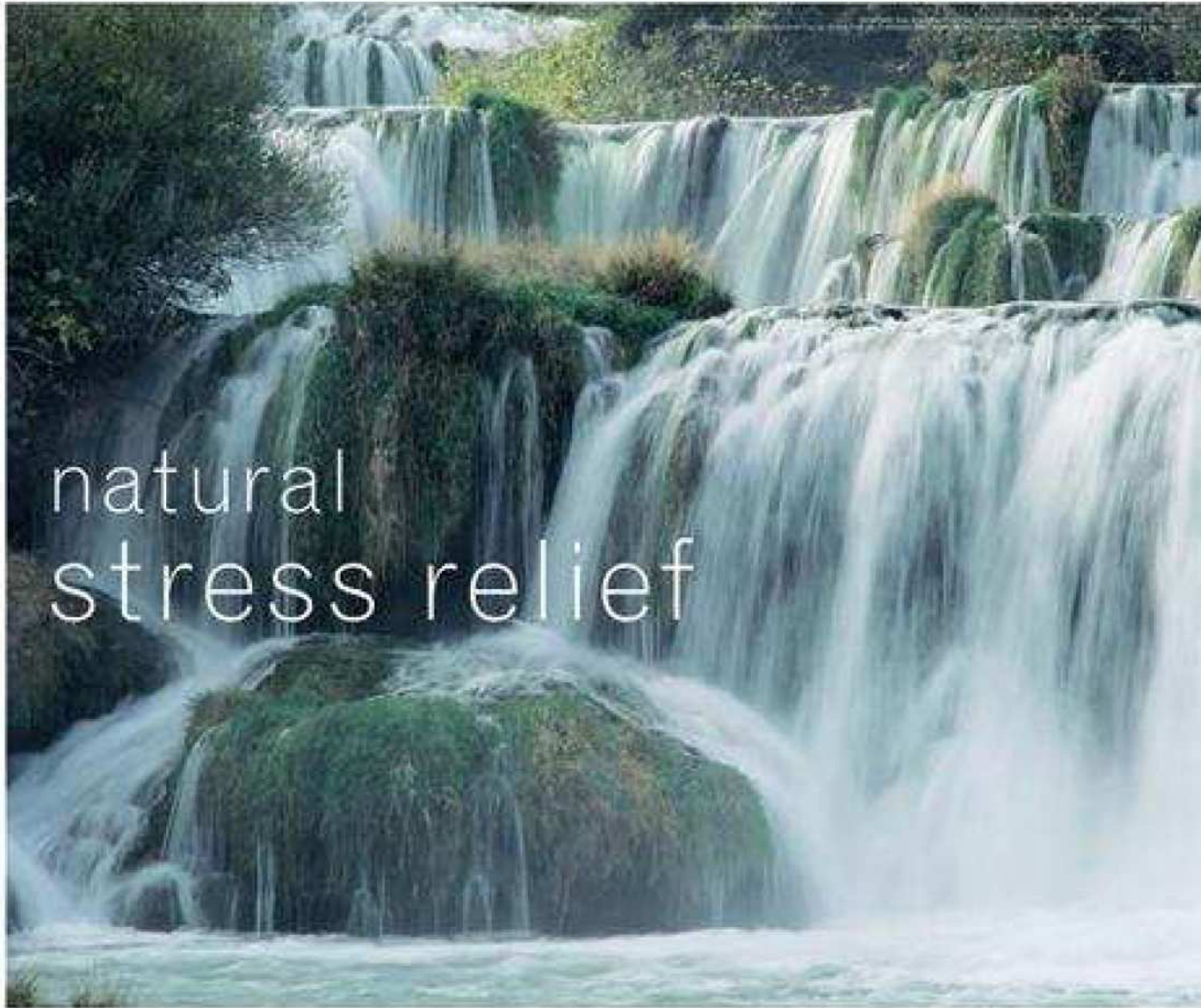
natural  
stress relief

An aerial photograph of a tropical coastline. The water is a vibrant turquoise, transitioning to a deep blue as it extends into the distance. Several islands and peninsulas are visible, covered in lush green vegetation. The text "naturál stress relief" is overlaid in white on the left side of the image.

naturál  
stress relief



natural  
stress relief



natural  
stress relief



A World of Differences