

Combating Muscle Wasting: Occupational therapy and speech therapy perspective

***It is important to note that it is key to receive an assessment and diagnosis by a trained professional. Techniques provided below may not be beneficial for every individual.**

Swallowing Exercises

Techniques

Chin Tuck: Sit upright with flat feet on the floor. Take a sip of water or a small bite of food. Gently bring your chin down toward your chest about halfway. Swallow the food and maintain this posture throughout the swallow. Allow the head to come back to a natural position. This technique narrows the airway and allows for slowing of liquid and food. This allows for improved coordination and time to coordinate the swallow.

Effortful swallow: Sit upright with flat feet on the floor. As you are about to swallow, attempt to constrict the muscles of the throat, tongue and neck. Imagine as if you are swallowing a pill or something larger in size. Swallow the food with effort (you should feel effort in your throat and neck). This exercise also allows for improved coordination and it is used to strengthen swallowing muscles.

Tongue tip swallow: Sit upright with flat feet on the floor. Take a sip of water or a small bite of food. Anchor the tip of your tongue to the alveolar ridge (bumpy ridge spot behind the upper teeth). The rest of the tongue should rest against the palate. Keep the tip of the tongue anchored while you swallow. Only the mid and back portions of the tongue should move. This is the appropriate way to swallow food and improves tongue resting posture and reduces thrusting of the tongue.

Swallowing Tips/Tricks

Upright posture: It is helpful to maintain an upright posture during mealtimes which allows the muscles to work properly. It improves digestion and decreases the risk of aspiration.

Slow and controlled meals: It is helpful to use slow and controlled meals as this allows your body time to coordinate swallowing. This can improve the strength and coordination of the oral facial muscles and also decrease the risk of aspiration/choking. It also assists with appetite regulation.

Encourage hydration: Having water during meals assists softening food which may improve swallowing. It also helps to clear food if you need to use a clean up swallow after an initial swallow. It also assists with pacing of meals to avoid overeating.

Equipment to help improve swallow:

Talk Tools Straw Hierarchy: This is an evidenced based program that improves lip rounding and closure of the lips. It encourages tongue retraction needed for appropriate swallowing. It also improves jaw stability and establishes suck-swallow-breathe coordination.

Replenish Water Bottle: This water bottle was designed by myofunctional therapists and encourages the tongue to retract. It also allows for strengthening of swallowing muscles and supports nasal breathing. This is specifically designed for passive muscle strengthening.

Helpful Tips for Breathing:

Diaphragmatic breathing: Find a position that is comfortable for you (laying on the floor or seated upright in a chair). Relax your shoulders, neck and jaw. Place one hand on your chest and one on your belly to assist with monitoring your breathing. Inhale slowly and let your belly rise. Your chest should stay still. Pause for at least 1-2 seconds before exhaling slowly. This type of breathing supports nasal breathing and oral rest posture. It can also assist with swallow coordination and improves core stability and posture.

Breathe in -swallow -breathe out pattern: This type of breathing pattern allows for airway protection and helps build awareness and control of breathing.

Breathe in → Swallow → Breathe out

Encourage closed mouth breathing (nasal breathing): Breathing through the mouth allows for appropriate facial and jaw development. The tongue should also rest against the palate to encourage appropriate palate shape which leads to improved breathing and teeth alignment. The nose is also our filtration system. Nasal breathing helps to maintain an open airway and reduces the risk of infections, snoring, sleep apnea etc. Nasal breathing also improves focus, sleep quality and energy throughout the day.

Hand Exercises

Lateral Pinch: The **lateral pinch** is how we grip something flat between the side of our index finger and the thumb—like when turning a key in a lock, turning your fuel cap on your car, holding a card, or using a zipper. It's important because it helps us do many small, everyday tasks that need a strong, steady grip without using our fingertips.



Putty Lateral Pinch

With your hand on its side and fingers in a fist, place the putty between your thumb and the side of your index finger. Pinch the putty as you would if you were holding key.

Repeat	10 Times
Hold	10 Seconds
Complete	1 Set
Perform	1 Times a Day

Three-Jaw Chuck Pinch: The **three-jaw chuck pinch** involves using the thumb, index finger, and middle finger to grasp small objects—like holding a pen, picking up a coin, or buttoning a shirt. It's one of the most commonly used grips for precise hand movements. This pinch is important because it allows us to do detailed tasks that require control and coordination, making it essential for writing, dressing, and many other daily activities.



Three Jaw Chuck Pinch

Using your thumb, index and middle finger, pull putty upwards

Repeat	10 Times
Hold	10 Seconds
Complete	1 Set
Perform	1 Times a Day

2-Point Pinch: The **2-point pinch**, also known as the **palmar or tip-to-tip pinch**, involves using the tips of the thumb and index finger to pick up or hold small objects. It's important for fine motor tasks like picking up a bead, threading a needle, or fastening a necklace clasp.



Palmar Pinch Putty Exercise

Pinch putty with thumb and each fingertip in turn. Repeat this motion with each finger by pinching putty until it is thin in between fingertips and can not be pinched any further.

Repeat	10 Times
Hold	10 Seconds
Complete	1 Set
Perform	1 Times a Day

Gross Grasp: The **gross grip**, also known as our **power grip**, is the ability to grasp and hold larger or heavier objects using the whole hand, like when holding a hammer, carrying a bag, or opening a jar. It involves the fingers wrapping around an object with support from the palm and thumb. This type of grip is important for tasks that need strength and stability, making it essential for many daily activities that involve lifting, carrying, or using tools.



PUTTY GRIP

Place putty in your hand and squeeze it firmly and slowly. Reshape it and repeat.

Video # VV3SDJHXE

Repeat	10 Times
Hold	10 Seconds
Complete	1 Set
Perform	1 Times a Day



PUTTY THUMB FLEXION

Press your the tip of your thumb into the putty as shown.

Video # VV9JFQZTC

Repeat	10 Times
Hold	10 Seconds
Complete	1 Set
Perform	1 Times a Day

Hand Joint Protection Techniques

Hand joint protection techniques are strategies used to reduce strain, prevent injury, and manage pain in the joints—especially important for people with arthritis or hand weakness. These techniques help protect the small joints in the hand and improve function during daily tasks. Key principles include:

- **Using larger, stronger joints** whenever possible (e.g., using the forearm instead of just fingers to lift).
- **Avoiding tight gripping or pinching** to reduce joint stress.
- **Using assistive tools** (like jar openers or thick-handled utensils) to make tasks easier.
- **Maintaining good posture and body mechanics** during activities.
- **Taking regular breaks** to avoid fatigue and overuse.
- **Modifying tasks** to reduce force and repetitive motion.

By following these techniques, people can help preserve hand function, reduce pain, and maintain independence in daily life.

Hand Adaptive Equipment

Adaptive equipment should be used when you **cannot complete a task on your own** or when doing the task **causes pain, strain, or fatigue**. These tools are designed to make daily activities—like dressing, cooking, or writing—**easier, safer, and less painful**. Using adaptive equipment can help protect your joints, improve independence, and prevent further injury. It's especially helpful for people with conditions like arthritis, hand weakness, or limited movement.



Built-up handles are tools or utensils with enlarged grips, often made by adding foam or rubber around the handle. They help improve function by making it **easier to grasp and hold items**. Built-up handles are commonly used on items like pens, toothbrushes, and kitchen tools to support **greater independence and comfort** during daily tasks.



Dycem is a non-slip material used to help with daily tasks by providing extra **grip and stability**. Dycem can be placed under objects like plates, cutting boards, or jars to keep them from sliding. Dycem can also be wrapped around handles of objects to increase the “stickiness” of the ob, making tasks like eating, writing, or opening containers **safer and easier**. It helps reduce the need for strong grip or two-handed use, supporting greater **independence and confidence** in daily activities.



A **rocker knife** is a specially designed knife that helps make cutting food easier and safer. Instead of using a sawing motion, the user rocks the knife back and forth to cut, which **reduces the effort and strain on the hand and wrist**.



Jar openers help protect the hands by **reducing the amount of force and strain** needed to open tightly sealed jars. By providing a better grip and minimizing twisting motions, jar openers help prevent pain, inflammation, and further joint damage. They also lower the risk of hand fatigue or injury, making tasks safer and more comfortable.

General Muscle Strength Tips

1. To protect your joints, perform **isometric exercises** (muscle contraction without movement) along with low impact activities.
 - **Vinyasa yoga** (a type of yoga) is my favorite low impact exercise. Yoga helps improve **flexibility, strength, balance, and posture**, while also promoting **relaxation, stress relief, and mental focus**. Many yoga poses involve holding a position for a period of time, which creates isometric muscle contractions—where muscles are engaged and working, but without changing length or causing movement at the joint.
 - **Strength training** is also a favorite of mine. To make any strength training exercise isometric, stop and hold the position where the muscle is most engaged. Complete longer holds with decreased repetitions.
2. Exercise **3-5x per week** for at least **30 minutes** per workout.
 - If you are struggling with muscle recovery, exercise every other day to give your muscles increased time to recover.
3. What is too easy of a workout vs too hard of a workout?
 - **Talk test:** If you find it difficult to speak a full sentence and can only respond in a few words, chances are your workout has been effective. You should be winded, but still be able to talk a bit.
 - **You're energized, but not wiped out:** When you finish an effective workout, you should feel tired but not exhausted.
 - **Recovery time:** After strenuous exercise, your heart rate is up and you're out of breath. Recovery should be fairly efficient, leaving you ready to continue your exercises. If you have trouble recovering, you're working too hard.
4. **Stretching:** Make sure to stretch BEFORE and AFTER working out.
 - Stretching Before
 - Prepares muscles for movement, improves range of motion, reduces risk of injury, and enhances performance.
 - Stretching After
 - Promotes recovery, increases flexibility, reduces muscle soreness, and supports joint health.

References:

- Image elements sourced from Canva.com
- OpenAI. ChatGPT. 27 June 2025, <https://chat.openai.com>.
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