

Exercises To Improve Esophageal Opening



JOLIE PARKER, MSCCC-SLP

Table of Contents

Table of Contents 1

Introduction..... 2

Medical Disclaimer 4

How CTAR and JOAR Exercises Improve Esophageal Opening..... 5

The Chin Tuck Against Resistance (CTAR) Exercise 9

The Jaw Opening Against Resistance (JOAR) Exercise 11

The Chin Tuck Against Resistance (CTAR) and Hold Exercise 13

The Jaw Opening Against Resistance (JOAR) and Hold Exercise 15

Advantages Of Using The PhagiaFlex Device 16

About The Author 19

Introduction

This is an instructional book for the Chin Tuck Against Resistance (CTAR) exercise and the Jaw Opening Against Resistance (JOAR) exercise for informational and educational purposes.

Both of these exercises can be used to strengthen the suprahyoid muscles (Geniohyoid, Mylohyoid, Stylohyoid, and the Digastric), which are the muscles under the chin, in the base of the tongue. These muscles primarily assist in the upward and forward movement of the hyolaryngeal complex (hyoid bone and larynx) and opening of the upper esophageal sphincter (UES) during the swallow. The Mylohyoid also functions to elevate the tongue and the floor of the oral cavity.

Sufficient forward and upward movement of the larynx during the swallow is very important for effective, safe swallowing, and for appropriate opening of the Upper Esophageal Sphincter (UES).

This book is authored by a Jolie Parker, MSCCC-SLP, a speech language pathologist and co-inventor of the PhagiaFlex Dysphagia Exercise Device. The PhagiaFlex Device has been used in clinical research studies and is currently being used by many hospitals, rehab centers, and individuals all over the globe. It has helped countless people improve swallowing function and UES opening during the swallow.

Here is a wonderful instructional article by Cambridge University Hospitals which discusses the PhagiaFlex Device, how it works, and how to use it: [How to use the PhagiaFlex CTAR \(chin tuck against resistance\) device](#)

PhagiaFlex Devices have been used in research studies and shown to be effective for improved upper esophageal sphincter (UES) opening and improved hyo-laryngeal elevation during the swallow. There are many other research articles which demonstrate these improvements from the Chin Tuck Against Resistance (CTAR) exercise and the Jaw Opening Against Resistance (JOAR) exercise. Here is a link to summaries of many [research](#) articles about these exercises, including 4 studies on PhagiaFlex Devices.

PhagiaFlex Devices are flexible, durable exercise tools, which have a bouncy feel when pressed and released, similar to the spring action in a prosthetic leg. These devices make doing these exercises fun and easy to do, so we can get maximum results.

Medical Disclaimer

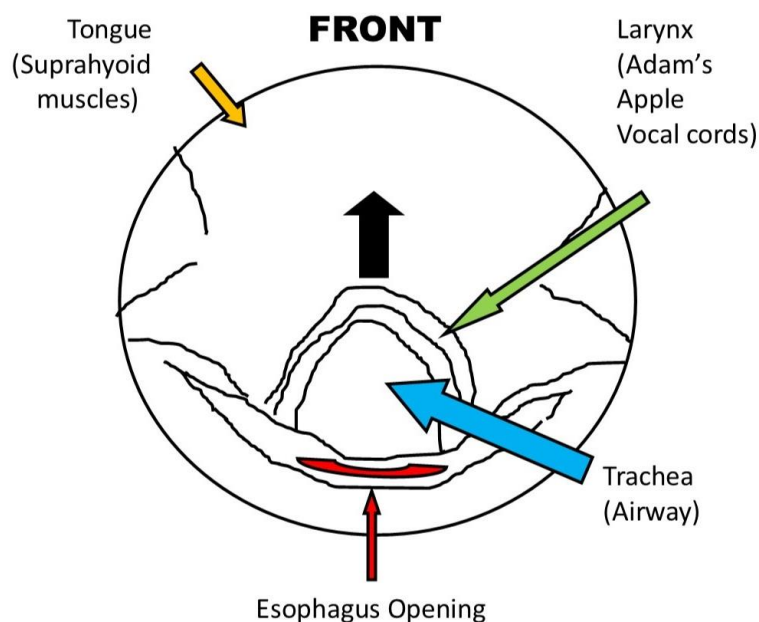
This book is for informational and educational purposes only and should not be taken as medical care or advice. Please consult your physician and your speech language pathologist for medical care of your specific health condition.

Do not attempt these exercises if you have any health conditions without first seeking advice from your medical practitioner to make sure the exercises are safe and appropriate for you.

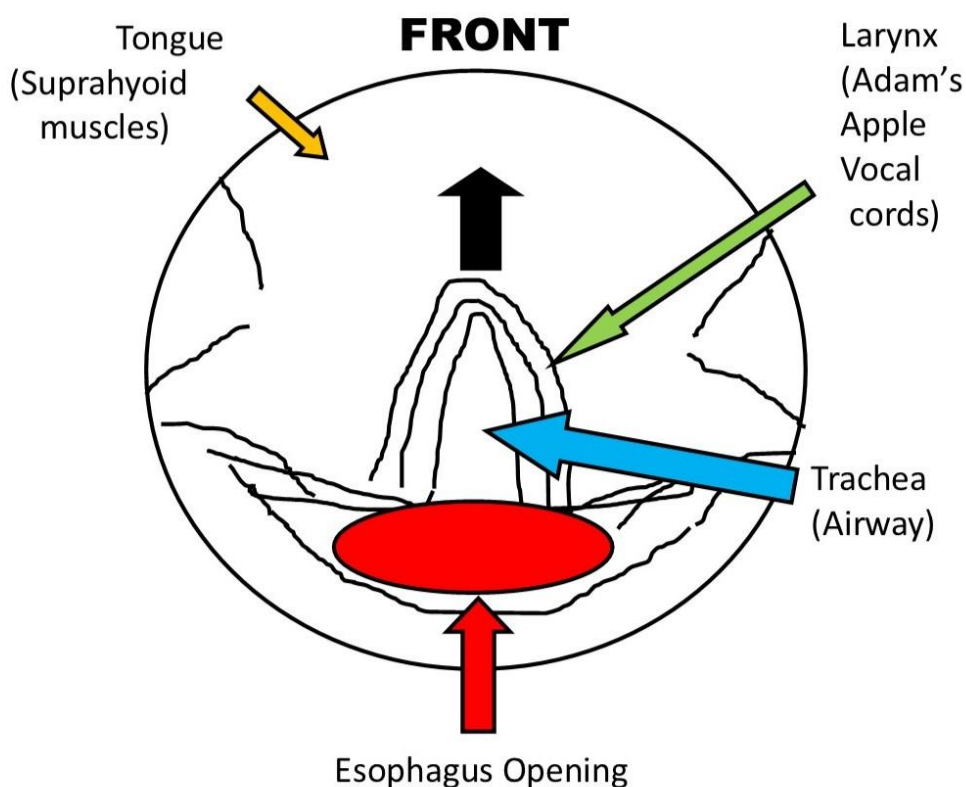
How CTAR and JOAR Exercises Improve Esophageal Opening

Even though a swallow happens very quickly, a lot of important things must happen for the swallow to be safe and effective.

First, the muscles in the base of the tongue (suprahyoid muscles) contract and move the back of the tongue up and back. This pushes the food or liquid into the throat or pharynx, but it does a lot more than that. This contraction is the power behind the swallow. If these muscles become weakened for any reason, the swallow becomes weaker, and may become nonfunctional or unsafe, and the esophagus may not open sufficiently.



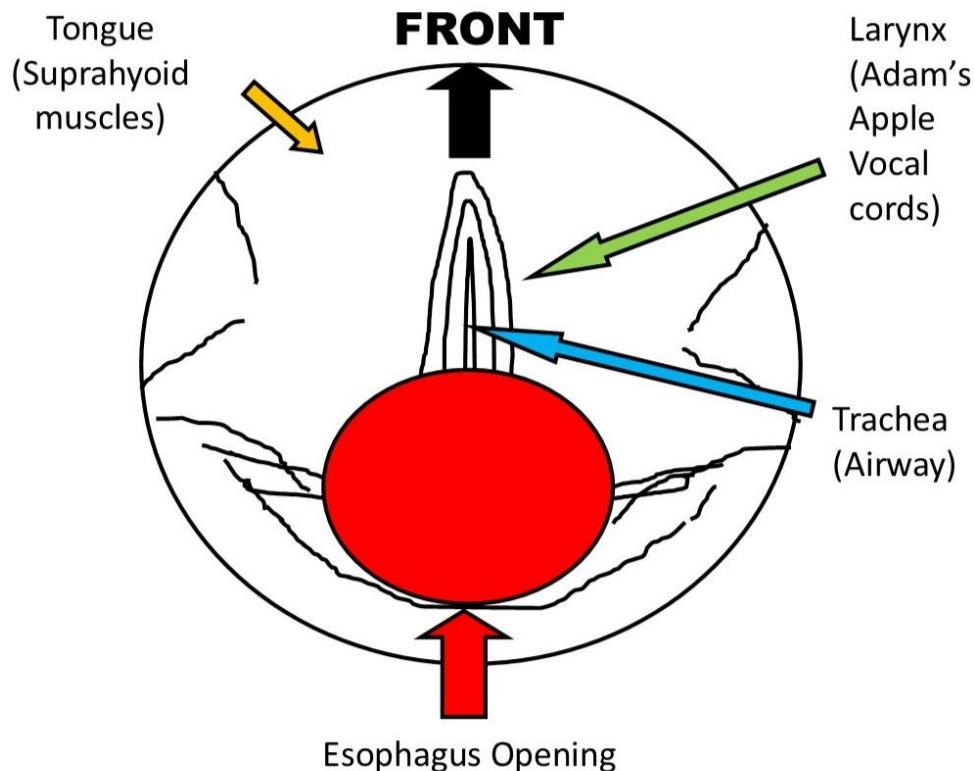
The contraction of the suprahyoid muscles pulls the hyoid bone and the larynx (vocal cords) upward and forward. They are connected to the opening of the esophagus, called the Upper Esophageal Sphincter (UES). So, when the suprahyoid muscles contract, they simultaneously move the larynx out of the way and help to pull the esophagus open.



The larynx is connected to one side of the esophagus opening (the UES), so when it moves it pulls the esophagus to open.

The stronger this upward and forward movement of the larynx is, the harder it pulls on the esophagus to open it. Therefore, it is

very important for the suprahyoid muscles to be strong. These muscles can become weak due to a variety of reasons. Even simply aging can weaken all our muscles over time.



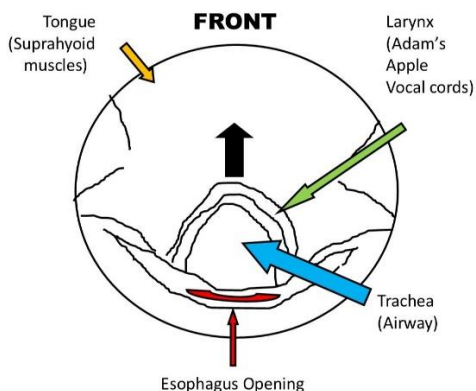
The exercises in this book have been shown in clinical research studies to improve the upward and forward movement of the larynx during the swallow, for improved UES opening.

For people who have a problem with the UES not opening well due to having a small UES or from tightening or shrinking of the UES due to radiation therapy, results may take longer and be more limited, but strengthening the suprahyoid muscles will

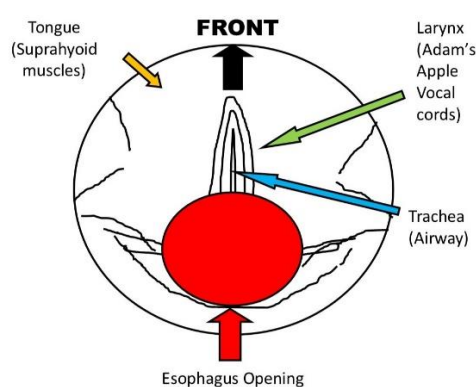
increase the pull on the UES with every swallow, which helps to maximize the opening and over time may help it stretch to open more.

Do each exercise until your muscles are fatigued. Then, rest for a minute and repeat. Continue exercising for a total of 30 minutes or until fatigued. Do this every day, unless your muscles feel sore.

Before the Swallow



During the Swallow



The Chin Tuck Against Resistance (CTAR) Exercise

Hold the PhagiaFlex Device under your chin, and keep the chest pad pressed firmly into your chest.

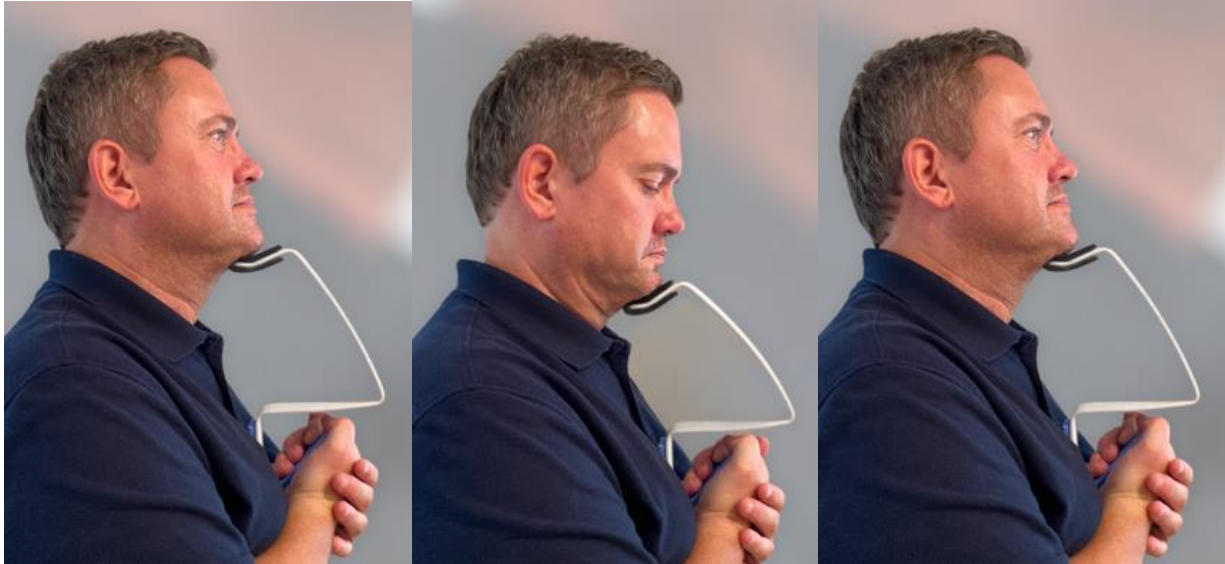
Begin with your chin slightly elevated, back straight, and ears directly over your shoulders.

Slowly nod your head up and down like you are nodding “YES”, with good range of motion, up and down.

Do not let your head lean forward. Keep your ears directly over your shoulders throughout the exercise.



Continue until your suprahyoid muscles under your chin feel fatigued.



Again, do not let your head lean forward. Keep your ears directly over your shoulders throughout the exercise. Just tuck your chin.

It's a very small movement, a slight nod of the head downward. We want to contract the suprahyoid muscles, not all your other muscles. We want to isolate the suprahyoid muscles as much as possible.

Do not push your head forward. That would use the muscles in the back of your neck, which is not what we want.

Instead, gently press your chin downward, tucking it down towards your throat, like you're nodding your head "yes".

The Jaw Opening Against Resistance (JOAR) Exercise

Hold the PhagiaFlex Device under your chin, with the chest pad pressed firmly against your chest.

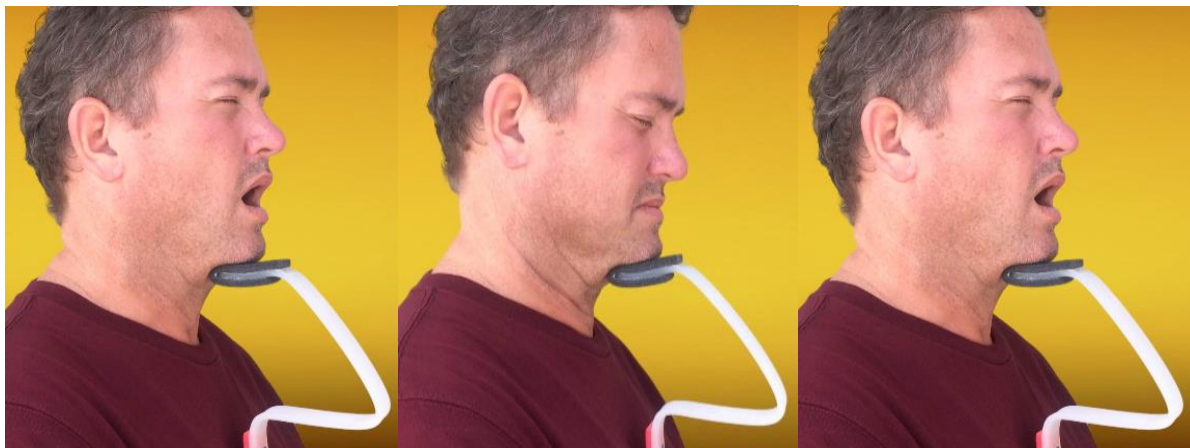
Begin with your chin slightly elevated, back straight, and ears directly over your shoulders.

Slowly nod your head down like you are nodding “YES”, until you feel some resistance from the PhagiaFlex Device.

Do not let your head lean forward. Keep your ears directly over your shoulders throughout the exercise.



Once in the chin tucked position, hold this position, with slight resistance, and slowly open your mouth.



Then, slowly close your mouth. Gently and slowly continue to open and close your mouth until your muscles feel fatigued. Rest and repeat.

The Chin Tuck Against Resistance (CTAR) and Hold Exercise

Hold the PhagiaFlex Device under your chin, with the chest pad pressed firmly against your chest.

Begin with your chin slightly elevated, back straight, and ears directly over your shoulders.

Slowly nod your head down like you are nodding “YES”, and hold this chin tucked against resistance position for 30-60 seconds, until your suprahyoid muscles feel fatigued.



Do not let your head lean forward.

Keep your ears directly over your shoulders throughout the exercise.

It's a very small movement, a slight nod of the head downward and then just hold that position. You might not feel the muscles working at first, but after holding it for 30-60 seconds, you should feel the muscles getting tired.

The Jaw Opening Against Resistance (JOAR) and Hold Exercise

Hold the PhagiaFlex Device under your chin, with the chest pad pressed firmly against your chest.

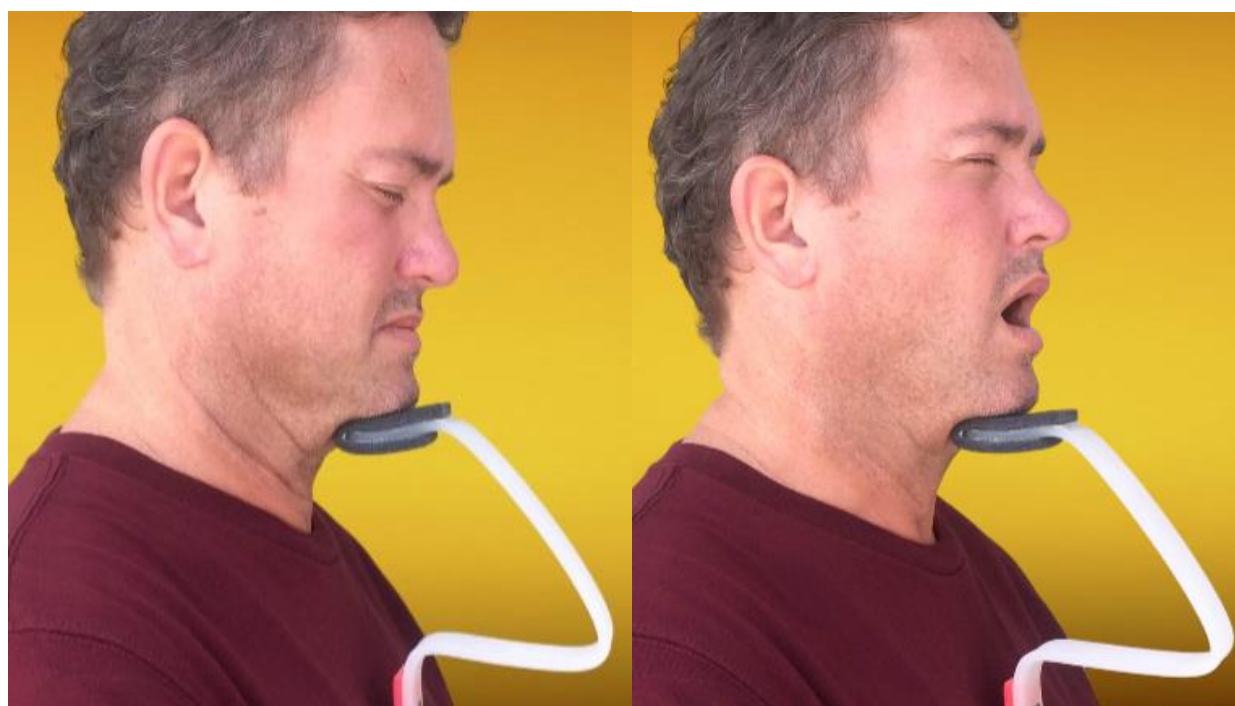
Begin with your chin slightly elevated, back straight, and ears directly over your shoulders.

Slowly nod your head down like you are nodding “YES”, until you feel a slight resistance from the device/ball/towel.

Do not let your head lean forward. Keep your ears directly over your shoulders throughout the exercise.

Once in the chin tucked position, hold this position, with slight resistance. Do not allow your head to lean backwards, but rather keep your head very still as you slowly open your mouth wide.

Hold this position for 30-60 seconds, until you feel your suprahyoid muscles fatigue.



Advantages Of Using The PhagiaFlex Device

The PhagiaFlex Device is easy to hold, with the handle at the elbow level instead of having to lift and hold arms up to the chin level which is difficult for many people.

This allows the suprahyoid muscles to become fatigued before the arm muscles do, for better results.



Patients report enjoying using the PhagiaFlex Device and demonstrate increased motivation during therapy exercises and better compliance with home exercise programs.

We also offer a Hands Free PhagiaFlex Device which slides onto a bedside table. We offer a pediatric sized model for children and small adults, a Pro-Pack which includes disposable chin pad covers and a carrying case, and more options for facilities.



The PhagiaFlex Device can be fully sanitized with sanitizing wipes after each use. Some facilities buy a PhagiaFlex device for each patient who needs one, so that each patient has his/her own device to use during therapy and independently also.



The Hands Free PhagiaFlex Device can be used with a Tabata timer to alternate periods of exercise and rest for the patient. This takes exercising ease to a whole new level! It is also ideal for patients who have lost strength or range of motion in one or both arms.

We offer a 60 Day Money Back Guarantee. If you are not completely satisfied with the PhagiaFlex Device for any reason, you can return it within 60 days for a full refund of the purchase price.

[Order your PhagiaFlex Device or Package Today!](#)

About The Author

Jolie Parker, MSCCC-SLP is a speech language pathologist with over 25 years of experience. She has helped many people with swallowing problems and people who had problems with upper esophageal sphincter (UES) opening.

She co-invented the PhagiaFlex Device with her husband, Page, after realizing how effective head nod and jaw opening against resistance exercises were with her patients. She told Page, “I need you to make me something that someone can hold like this, and it will do this...” and he did!



Page and Jolie Parker invented their first PhagiaFlex Device in 2009.



PAGE AND JOLIE PARKER

Wishing you the best of health!