

NUVICOR MEWING TECHNOLOGY

I. DESCRIPTION OF THE WORKING PRINCIPLE OF NUVICOR MEWING.

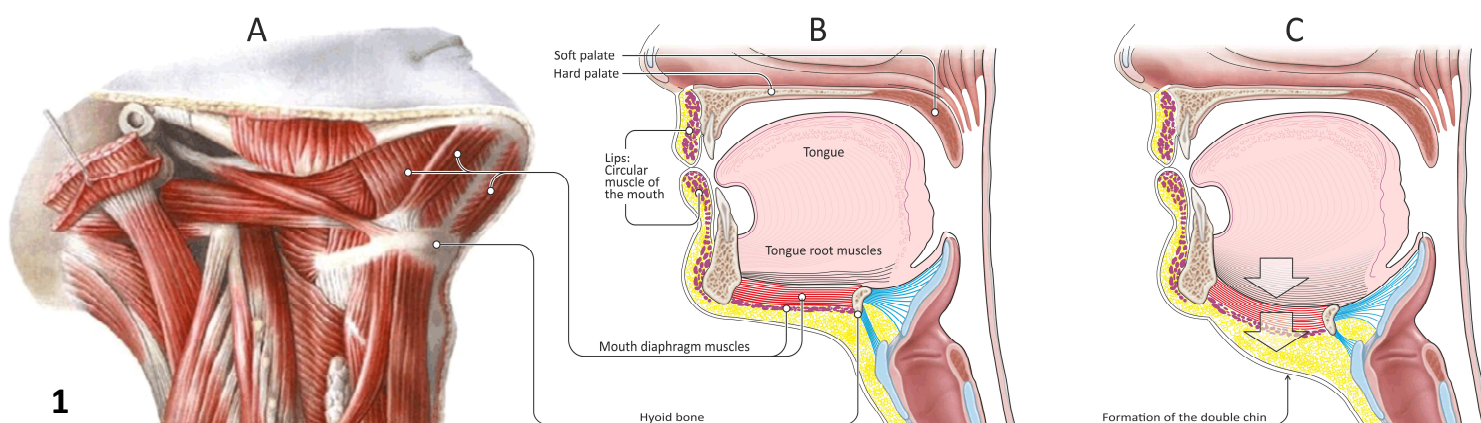
1. Purpose of the NuviCor MEWING device.

The NuviCor MEWING device is designed to train facial muscles, including exercises called Mewing. The main purpose of Mewing exercises is to eliminate the cosmetic defect called “double chin”. In addition, Mewing is used to actively counteract age-related changes associated with the position of the upper jaw (Maxilla). Age-related weakening of the facial muscles leads to gradual drooping and backward displacement of the upper jaw bones (gravitational ptosis). This creates conditions for the formation of a senile facial structure, with the formation of nasolabial wrinkles and Jowls.

2. Justification of the effectiveness of the technology.

2.1 Mouth diaphragm muscles. Causes of double chin formation.

Figure 1 shows an anatomical diagram of the structure of the submandibular region called the oral diaphragm.



A view of these muscles from below, shown in Figure 1-A. The muscles of the oral diaphragm attach to the edge of the mandible and to the hyoid bone, forming the hyoid region. Figure 1-B shows a schematic of the oral cavity, lateral view. The tongue, with its powerful muscles, occupies the bulk of the mouth. The tongue has its own attachment to the mandible, but it exerts considerable pressure on the oral diaphragm muscles beneath it.

As we age, the muscles of the mouth diaphragm become weaker and lose volume and tone. Therefore, the pressure of the tongue root gradually stretches the diaphragm muscles of the mouth, causing the entire hyoid area to shift downward, as shown schematically in Figure 1-C. This is the primary cause of double chin formation. Additional factors that accelerate the appearance of a double chin are overweight, fat accumulation in the hyoid region, poor posture, and slow local lymphatic flow.

2.2 To get rid of a double chin, it is necessary to affect its cause, namely, to restore the strength, volume and tone of the muscles that form the diaphragm of the mouth. The only known and valid way of restoring the muscles is to exercise them, that is, to exert them repeatedly and vigorously.

Frequently recommended massage is useful for muscle fatigue, but it is useless for restoring muscle strength and volume. The same is true of physiotherapy treatments: they may improve skin condition, but they cannot affect muscle volume and strength.

The result of muscle training, their repeated and strong tension, is the launch of protein synthesis in muscle cells, which is the physiological basis for restoring muscle strength, volume and tone. This is why training, rather than any other methods, is used in sports to make muscles strong.

3. The Mewing exercise. Successes and problems.

The most effective exercise to restore the muscles of the mouth diaphragm is Mewing, which was first proposed about 60 years ago to solve some problems in dentistry related to the deformity of facial bones.

In the last 10 years, Mewing has started to be actively used in functional cosmetology as an important element of face fitness. Numerous publications show examples of the effectiveness of the method, primarily for getting rid of double chin and improving the shape of the face in case of age-related soft tissue prolapse (ptosis).

3.1 What is Mewing?

Physically, Mewing is the forceful pressing of the tongue against the hard palate. In this action, the muscles of the root of the tongue and the mouth diaphragm muscles of the are intensely tensed. With repeated repetition of this action occurs:

- Gradual strengthening of the trained muscles, primarily the mouth diaphragm muscles.

This removes the cause of the double chin, as the strength, tone and volume of the muscles of the hyoid area are restored;

- gradual mechanical lifting of the bones of the upper jaw due to the long-term force of the tongue against the hard palate. This mechanical displacement of the bones is possible due to the relatively mobile and extensible ligaments connecting the bony parts of the maxilla.

3.2 Existing problems.

However, there are also negative reviews indicating that Mewing is often ineffective. The reason for this is that many users do not perform the exercise correctly.

NuviCor MEWING was developed to ensure that exercise is performed with maximum efficiency and always achieves results.

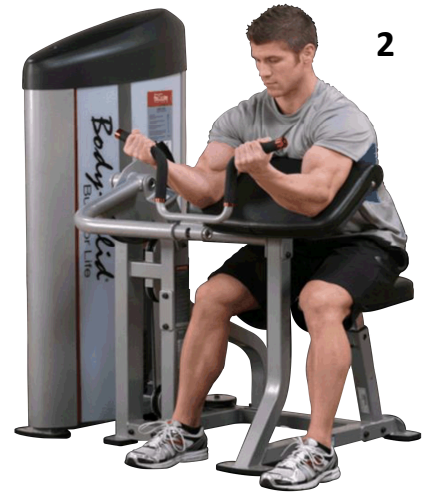
NuviCor MEWING is a muscle training device that works in conjunction with a phone app.

4. What is the NuviCor MEWING device for?

4.1 What determines the success of a workout?

The success of a training session is determined by the amount of force a muscle develops. If the muscle tension is weak, there will be no noticeable effect from training. But if you regularly repeat a strong muscle tension, gradually increasing the load, the effect of training will be obvious. This is a well-known fact.

Many of us go to the gym and know that the best training results are achieved when using an exercise machine (such as the one shown in Figure 2). Its main advantage is that with its help you control the strength of muscle tension, forcing the muscle to tense with a sufficiently high force. This is what guarantees the success of a training session with the machine.



4.2 Facial Muscle Trainer.

There are no simulators for working with facial muscles and, in particular, for Mewing. And therein lies the most important reason why Mewing is not effective enough. When performing the exercise, you have no objective information about how much you are tensing the muscles. You are guided only by your subjective perception, which are often far from reality.

NuviCor MEWING measures muscle tension and gives you objective information about how hard you are tensing your muscles.

And this information is given to you immediately, in real time, at the moment the muscle is tensed. This means that when you tense your muscles, you can see at a glance how tight they are, and you can immediately adjust their tension if necessary.

5. How does NuviCor MEWING work?

5.1 A brief description of the technology. Electromyogram.

Figure 3 shows how the NuviCor MEWING is practically used. The device has metal contacts that you press against the hyoid area and, further, produce muscle tension by pressing the tongue against the hard palate.

The metal contacts are electromyogram (EMG) sensors.

What is EMG?

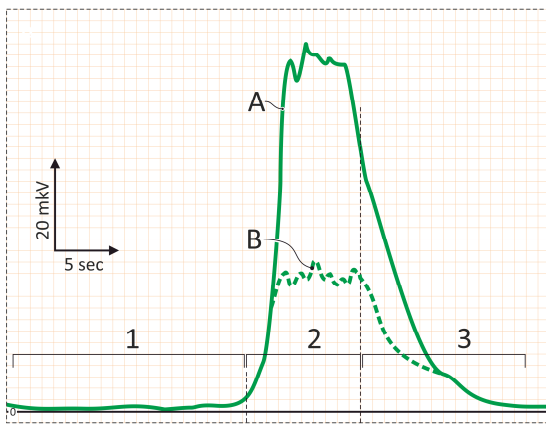
EMG is a well-known technology that is widely used to diagnose muscles, and to restore movements.

Without going into details, the essence of the EMG method is that the muscle, when tensed, generates certain bioelectrical signals that can be recorded from the surface of the muscle using electronics.

Figure 4 shows the EMG signal when the muscle is tensed (green line). Period "1" is the EMG signal from the muscle at rest. It is close to zero. Period "2" is the tension phase of the muscle. The more the muscle tenses, the more EMG signal it generates and the graph goes up. Graph "A" is the signal from the muscle when it is highly tense. Graph "B" (dashed) is the signal from the muscle at low tension.



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Period “3” is the relaxation phase of the muscle: the EMG signal returns to zero. This is how NuviCor MEWING measures the strength of muscle tension. But to help you control your muscle tension, the device transmits the EMG signal to your phone's screen. So when you tense your muscles, you can see directly and in real time how hard you are tensing your muscles.

5.2 What is the point of using the NuviCor MEWING device?

Look at Figure 5. It shows how muscles work in two situations.

“A” shows muscle tension in a person performing Mewing without using the NuviCor MEWING device. Figure 5-B shows muscle tension under the condition of working with the NuviCor MEWING device.

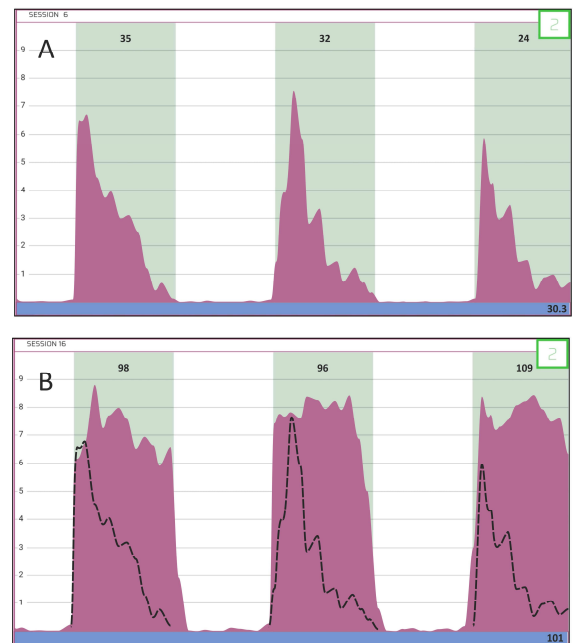
In both cases, the task is to strongly tense the muscles three times on voice command.

In the first situation, the NuviCor MEWING is used only as a measurement tool and the person

does not see the phone screen displaying the EMG signal. He or she is trying to perform the task responsibly: maximize muscle tension by pressing the tongue against the palate (Fig. 5-A). At the same time, he is guided only by his subjective perception of the strength of muscle tension, believing that he is tensing the muscles with great force.

In the second situation, the person performs the same task. However, the difference is that the phone screen is in front of his eyes, and the person is objectively informed about how his muscles are actually tensing (Fig. 5-B).

It is obvious that in the second situation, when the person objectively controls the strength of his muscles tension, the muscle tension increases more than 3 times. This follows from the comparison of the graphs in Fig. 5 A and B.



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Why does it happen? The brain follows an internal command and tenses the muscles with sufficient force. However, in the absence of any control (feedback), the muscle tension will rapidly decrease. This is exactly what we observe in Figure 5-A.

The NuviCor MEWING device provides feedback by displaying muscle tension in real time on the phone screen. This results in the user actively controlling the amount of muscle tension and using their willpower to keep the muscle from relaxing (Fig. 5-B). But in the absence of feedback, the muscle tension is not controlled in any way, and the muscle begins to lose tension quickly, as we saw in Figure 5A.

When you work with the NuviCor MEWING device, you have objective and accurate information about the amount of tension in your own muscles. This makes it possible to keep muscle tension at

a high level. What wasted months of often futile effort is now guaranteed to be achieved in just a couple of weeks.

A standard training course consists of 30 sessions of 15 to 20 minutes each. With a responsible approach to training (e.g. 2 sessions a day), you will get rid of your double chin and visibly rejuvenate in just two weeks.

6.1 For maximum effectiveness, three variations of exercises are suggested.

The first is to develop the part of muscle fibers that provide the force of muscle contraction. These are the so-called “white” fibers. In this case it is required to tense the muscles strongly and for a short time.

The second exercise is aimed at involving neurons of the activated muscles in interactions with various brain systems in order to lower their activation threshold. This is achieved by the method of hand-eye coordination.

The third exercise is designed to develop the so-called “red” muscle fibers, which provide muscle tone and its ability to maintain constant tension. The essence of the training is to maintain a prolonged, but not strong muscle tension.

6.2 Artificial intelligence as an important component of NuviCor MEWING technology.

An important feature of training is that the NuviCor MEWING device automatically adapts to your capabilities. The fact is that muscle strength can vary several times from person to person. Therefore, the requirement for muscle strength must be individualized. The NuviCor MEWING analyzes your muscles and constantly adjusts the difficulty of the task.

6.3 Motivational support for the training process.

The goal of the NuviCor MEWING technology is rejuvenation, overcoming external signs of fading and aging. This is a strong enough motivation to lead many people to the idea of practicing face fitness. However, most people don't like the hard muscle work that is a mandatory attribute of the exercise process. With this in mind, the NuviCor MEWING technology uses motivational incentives to keep you motivated to exercise and achieve your rejuvenation goal.

Each exercise is repeated multiple times and periods of muscle tension are alternated with periods of rest. During rest periods, NuviCor MEWING offers you motivational stimuli such as watching videos or images. You can choose your own videos from the Internet based on your own preferences.

Exercise #3, aimed at developing muscle tone, is a video demonstration. The procedure is built so that the possibility of watching an interesting movie depends on whether you tense your muscles or not. From you do not require special efforts: it is important that the muscles are tensed for a long time. This is what ensures that you can watch a video. If there is no muscle tension, the movie screen goes off.

The presence of motivational stimuli makes training fun, more effective and allows you to overcome the difficulties associated with muscle tension.

II. PRACTICAL GUIDANCE.

7. NuviCor MEWING package.



Upon opening the box, you will see:

- 1 - NuviCor MEWING device;
- 2 - Two “AAA” batteries;
- 3 - Packing bag;
- 4 - Accessory box containing:
 - 5 - Cleaning wipes;
 - 6 - Electrode gel;
 - 7 - Phone stand and “Quick Start Guide” for the user.

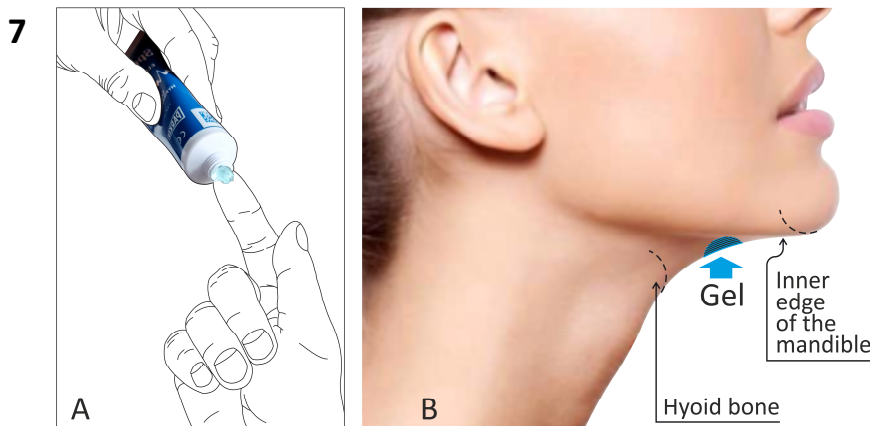
8. Prepare the NuviCor MEWING device for operation.

8.1 Install two AAA batteries in the device. To do this:

- slide the battery compartment panel;
- insert the batteries observing the polarity (there are “+” and “-” signs on the bottom). The indicator on the front panel will turn on for 1 sec. when correctly installed;
- close the battery compartment panel.

8.2 Download the NuviCor MEWING app to your phone (tablet). To do this, go to the Apple Store or Google Play (if you have an Android phone) and install the application. After that you can start training.

9. Preparation for the first training session



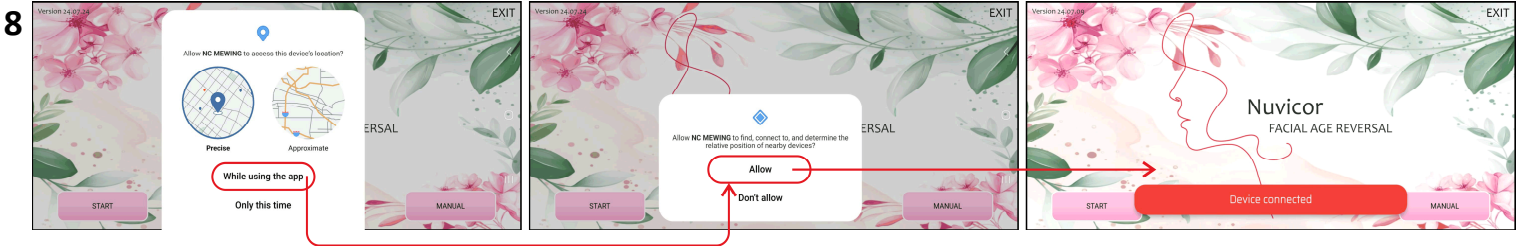
9.1 Skin preparation.

As already demonstrated in Figure 3, it is essential that the device is in constant contact with the skin of the submandibular region during training. Only then is it possible to record the EMG signal from the mouth diaphragm muscles. Therefore, before you start training, wipe your skin with the supplied tissue, apply a drop of gel to your finger (Fig. 7A), and smear it on the place on the skin where you will press the NuviCor MEWING device (Fig. 7B). This location is midway between the inner edge of the lower jaw and the hyoid bone, as shown in the illustration. The desired volume of gel is 0.5 mL. For men with a beard, a larger volume of gel should be used, as hair interferes with the contact of the device with the skin.

9.2 Preparation for the first training session.

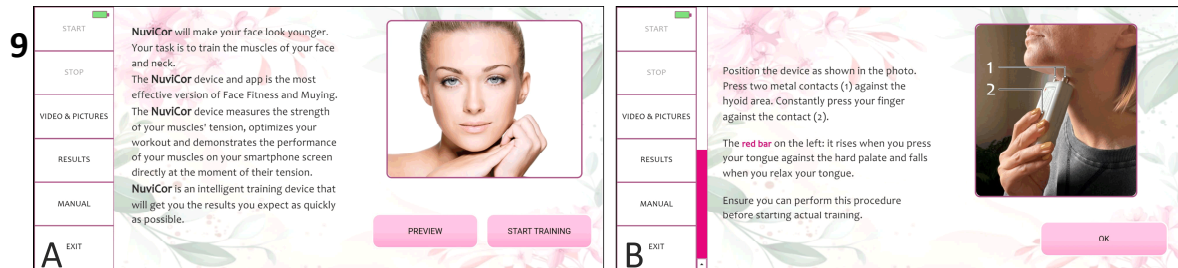
The first session is used to familiarize yourself with the training procedure.

The application requires Bluetooth on your phone to be enabled. When you open the application for the first time, you will be asked to give permission for the application to connect to your phone's Bluetooth (Fig. 8). The message "Device connected" will appear and the indicator on your device will start blinking: this means that the connection between the device and the application is established.



Press START button: the initial window of the application will open with informative text (Fig. 9A). The first step is to check if the device and its connection with the application are functional. To do this, press the PREVIEW button - a window will open where you can see the signal from the device (Fig. 9B): it is a red vertical bar on the left side of the screen. Press the device against the skin in the hyoid area as shown in the picture in the window:

- the metal contacts must be pressed against the skin (Figure 9B - 1);
- any finger of the hand in which you are holding the device should touch the contact on the housing (Fig. 9B - 2).

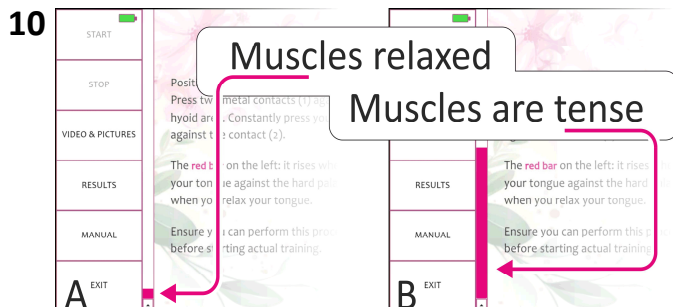


The force with which you press the device against your skin should be sufficient to ensure good skin contact, but not excessive so as not to cause discomfort or fatigue to your hand. This is how you will need to hold the device throughout the training session.

If the muscles of the hyoid region are relaxed, there is little or no height of the red bar (Fig. 10A).

Next, you need to perform tongue muscle tension. Your mouth should be closed. Raise your

tongue up and press it against your palate (not against your teeth, but against your upper palate!). As you do this, the red bar will rise upwards (Fig. 10B). The more you press your tongue against the palate, the more the muscles of the hyoid area tense up and the higher the red column rises. Repeat this action slowly a few times to make sure you are doing it well, and only then proceed with the exercises.



9.3 Testing procedure.

After checking that the device is working properly, proceed to the training session.

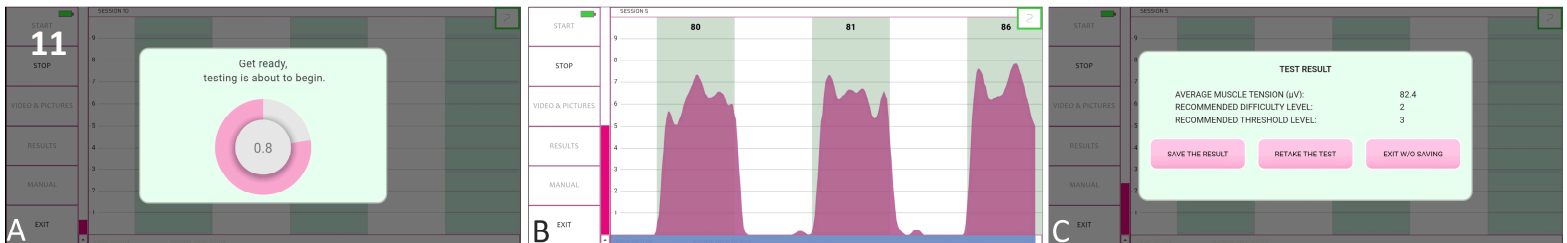
The training will consist of three exercises, each of which will be repeated several times with rest intervals.

Before beginning the exercises, a testing procedure will be performed to:

- quantify the condition of your hyoid muscles;
- to find the optimal load for your exercises.

The results of muscle testing, which is performed before each exercise: is the main objective indicator of how your muscles are changing during exercise. These results are stored in the app and you can always see them by tapping the RESULTS button.

Go back to the initial window (Fig. 9A, OK button) and press the START TRAINING button. This will open an information window explaining the test procedure.



Press the device against the hyoid area, relax the muscles, and press the START TEST button.

After that, the timer window will open (Fig. 11A), the command “GET READY!” will sound, and then the test window will open (Fig. 11B). Your task is to press your tongue against your palate as hard as possible, hold this effort for 5 seconds and then relax your muscles. At the same time, voice commands are heard to inform you of the beginning and end of the effort. Repeat this effort three times so that the graph on the screen looks like Figure 11B.

When the test is complete, a window will appear with the result (Fig. 11 C). It shows the strength of the muscle tension (in microvolts , mkV) and the presets for subsequent exercises, which will be set automatically.

If you think that the test procedure went well, press the SAVE THE RESULT button.

If you think that you made mistakes during the test, for example, you did not tense the muscles as commanded, you delayed, or you think you can tense the muscles harder, you can repeat the test. To do this, press the RETAKE THE TEST button.

You can choose not to save the test result by pressing the EXIT W/O TESTING button.

At the end of the test, the information window of the first exercise opens.

10. Exercise No. 1

10.1 Purpose of Exercise No. 1.

The purpose of Exercise No. 1 is to increase muscle strength. How does it happen?

Muscles consist of muscle cells, each of which produces a small mechanical movement (contraction) after the nerve excitation comes to it. Thousands of muscle cells are excited at the same time, and their small mechanical contractions are summarized into the tension of the entire muscle, which we see as movement.

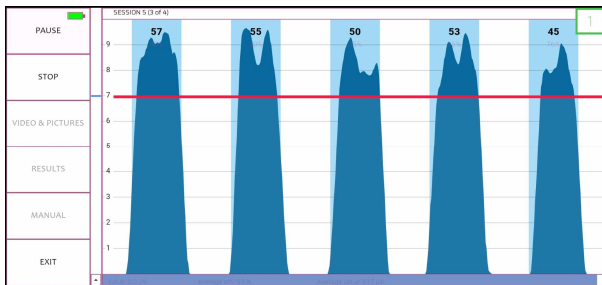
The strength of the muscle tension depends on the number of specific “contractile” proteins in each muscle cell - muscle fibrils. These are the ones that do the mechanical work. If there are a lot of such proteins in muscle cells, such a muscle produces a much greater force than the muscle whose cells contain few contractile proteins.

The amount of contractile proteins in a muscle cell is automatically regulated. If a muscle is frequently and intensively strained, its cells begin to actively synthesize contractile proteins. The result is that the muscle increases in volume, strength and endurance (remember the figures of bodybuilders).

Muscle cells are of two types: they are conventionally called “red” and “white”. Red cells are responsible for slow and prolonged efforts and maintain muscle tone.

White cells are responsible for fast, strong movements. To develop them, you need to train the muscle by tensing it intensely and for a short period of time. This is exactly what exercise No. 1 is for.

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10.2 Progress of Exercise #1.

The information window before Exercise #1 describes the sequence of actions you need to perform. The working window of Exercise #1 is shown in Fig. 12. You are required to make 5 muscle tensions for 5 seconds each. At the same time you should make sure that the blue graph, which reflects the tension of your muscles, rises above the red line. The red line is the

threshold level, which indicates how much force you should tense your muscles with.

While performing this exercise, you must strictly follow the voice commands that indicate when to tense and when to relax your muscles.

After each such cycle of muscle tensions, a rest period of 20 seconds will follow. At the same time you will be shown popular video clips from YouTube (Fig. 13). The window that opens during the rest period has control buttons. There is a “+” button in the upper left corner: each time you press it, the rest period increases by 10 seconds (in total, no more than 80 seconds). You can use this option if you are tired of the muscle load and need a longer rest.

The other button in the upper right corner (SKIP) ends the rest period early and starts the next work cycle.

The total number of cycles varies from 3 (in the first session) to 7 in later sessions.

What other exercise control options you can use:

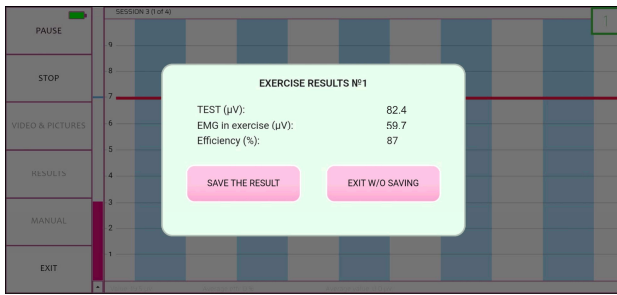
- PAUSE button. It stops the exercise if you need to be distracted. Press the START button to continue the exercise;

- STOP button. This is needed if you want to end the exercise before it ends automatically. A window will appear to confirm your intention and the exercise will end.

At the end of the exercise, a window will appear with the results (Fig. 14). The top row is a repetition of the test data. Next, the window shows the average EMG signal (i.e., muscle tension strength) during the exercise. This is the most important outcome of Exercise #1. There is also a



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parameter “Efficiency”. It indicates how well you performed the task. Specifically: what proportion (in %) of your effort was above the threshold. Anything over 70% is a good result.

Press the SAVE THE RESULT button to save the result and move on to the next exercise.

10.3 Recommendations.

NuviCor MEWING technology is a training device that makes your workout as effective as possible. However, it is important to realize that muscle tension is your task, and no simulator will do this job for you. Therefore, you should tense your muscles quite intensively, but, of course, to the best of your ability.

When starting a session with testing, try to do it responsibly, tensing your muscles at the right time intervals and with maximum force.

Don't worry if the task seems excessive at the initial stages of training. The app will automatically adjust and make your task easier in the next cycle.

Try to strictly follow the voice commands: this will make the measurement of your muscle tension strength more accurate and the result of your workout higher.

Remember to keep the device pressed against the skin in the hyoid area at all times. The device registers microsignals from your muscles, so any movement of the device will cause interference. This drastically reduces the quality of your workout. Therefore, keep the device pressed down and do not move it during your workout. During the rest period you may not press the device against your skin, but on the signal to start the next cycle, press the device again. Gradually you will acquire this skill.

Next, in section 14, we will describe an algorithm for selecting movies and slides as you wish. This will make practicing more fun and effective.

11. Exercise No. 2.

11.1 Purpose of Exercise #2.

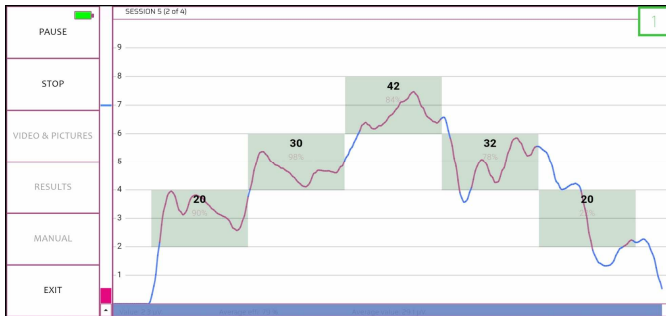
The brain neurons that make the muscle tense (motoneurons) have connections with many thousands of other neurons in the brain. The presence of a large number of diverse inter-neuronal connections determines the ability of motoneurons to be excited quickly and easily, and this maintains high muscle tone. With age, the number of these inter-neuronal connections decreases, which leads to a decrease in the excitability of motoneurons and their activity. This is the main reason for the increasing weakness of muscles as we age.

However, it is possible to restore and strengthen inter-neuronal interactions, which will lead to a more active state of motoneurons. The best known method is visual-motor coordination exercises. When performing movements that involve visual commands, motor neurons receive an intense flow of excitation from neurons in the visual structures of the brain, the largest source of excitation in the brain. As training progresses, the number of visual-motor junctions in the brain increases.

This restores the normal state of motoneurons and, accordingly, the muscles they control.

Exercise No. 2 realizes the procedure of visual-motor coordination.

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11.2 Progress of Exercise 2.

The information window before Exercise No. 2 describes the sequence of actions you need to perform. The working window of Exercise #1 is shown in Fig. 15.

You are required to tense your muscles so that the graph on the screen passes through the colored squares. Muscle tension should be dosed in strength. You should try not to go beyond the

borders of a square. When approaching the next square, you should change the muscle tension to keep the graph at the new level.

There are a total of 5 squares on the working field. The first three require you to gradually increase muscle tension, and the next two require you to gradually decrease tension.

The length of each square is 5 sec. If the muscle tension graph goes out of the square boundaries, a sound signal is activated, additionally informing you about the necessity to correct your effort.

In Exercise No. 2 you are not required to maximize muscle tension as in Exercise No. 1. The main criterion here is the accuracy with which you are able to coordinate the visual task and your muscular effort. This is not an easy task, especially at the initial stage of training, and causes fatigue.

The time structure of Exercise #2 is the same as the previous exercise: 30-second periods of muscle tension are followed by periods of rest, the duration of which you can control with the “+” and “SKIP” buttons (Fig. 13).

At the end of the exercise, a window with the results will appear, as in the previous exercise. As already mentioned, in Exercise No. 2 the value of muscle tension is not such an important parameter. Due to the invariability of the task, it will not change from session to session. What is really important for evaluating Exercise #2 is the parameter “Efficiency”, which indicates how much of the time (in %) you performed the exercise correctly. That is, what % of the time your muscle tension graph was “inside” the colored squares. It is the “Efficiency” parameter that you should pay attention to when analyzing the results of your workout. If the efficiency is greater than 60%, it is quite acceptable. If the efficiency is above 70%, this is a good result.

12. Exercise No. 3.

12.1 Purpose of Exercise No. 3.

In the description of the purpose of Exercise No. 1 it has already been mentioned that a muscle consists of cells with different properties. The cells called “red cells” are responsible for muscle tone, i.e., for not strong but constant muscle tension. The gradual loss of these cells with age has the greatest impact on the formation of a double chin due to decreased muscle tone and sagging of the mouth diaphragm (see Figure 1C).

To restore muscle tone, training in which the muscles are tensed with little force but for a long period of time is optimal. This is exactly what is realized in Exercise No. 3.

12.2 Features of Exercise No. 3 realization

The distinctive feature of Exercise No. 3 is that you will not follow the schedule of muscle tension as in the two previous exercises. In Exercise No. 3 you will be offered to watch a movie. But the ability to watch the movie depends on whether you maintain muscle tension. The device measures

the strength of muscle tension, and if the muscles are tense with sufficient strength, the movie is available for viewing. But if the muscle tension is insufficient, the screen goes black and you lose the pleasure of watching an interesting movie. To turn the screen back on, you need to increase the muscle tension.

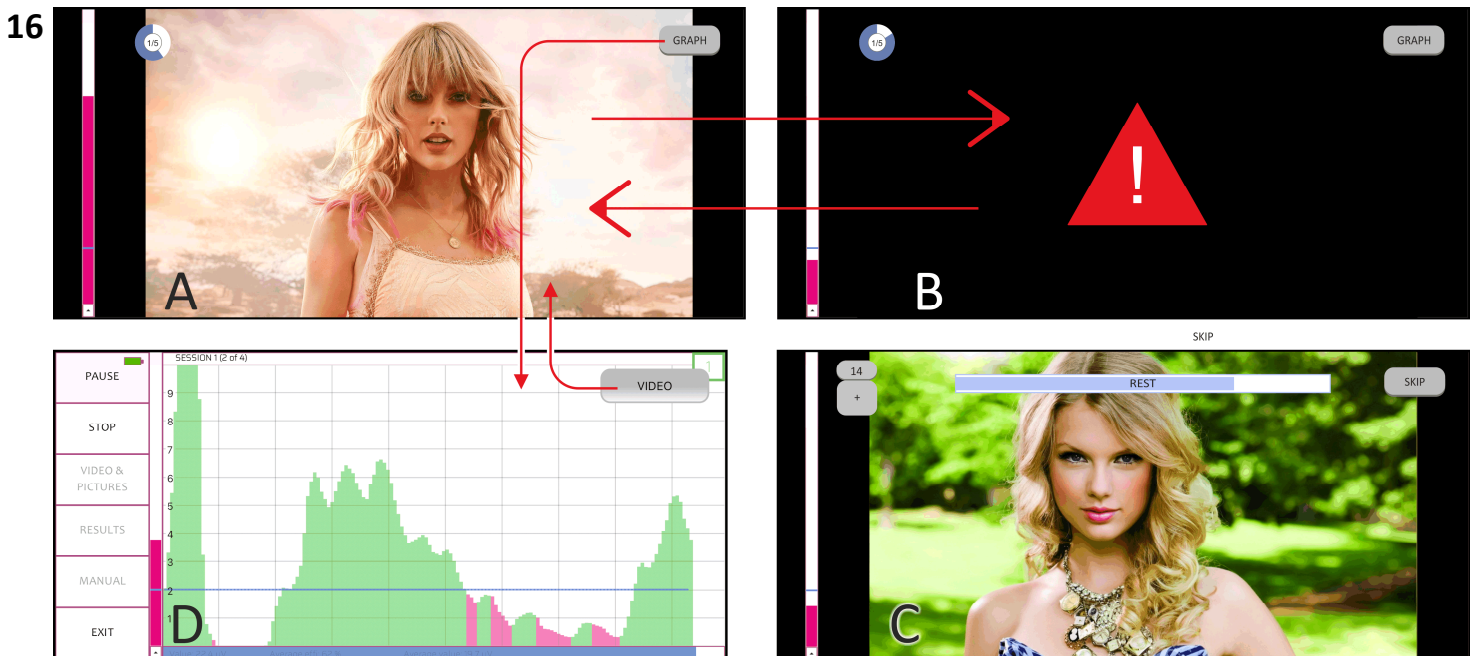
This technology is called “Motivational biofeedback” and is a modern implementation of the classical behavioral method “Operant Conditioning”, which has been used by psychologists for more than 80 years. Its essence is that from its own diverse activity the brain selects and stores those variants of actions that are associated with encouragement and get rid of “punishment”. Exercise #3 implements this method in the form of mild “punishment” (turning off the movie) and encouragement (turning on the movie). It is clear that for this method to work effectively, the movie should be interesting and evoke positive emotions. Therefore, Section 14 describes an algorithm for choosing a movie of your choice. However, in the first session, to simplify the familiarization procedure, use the video that is preset and starts automatically.

12.3 Progress of Exercise 3.

The information window before Exercise 3 describes the sequence of actions you need to perform. The windows that appear during Exercise No. 3 are shown in Fig. 16.

After pressing the START button, you begin to tense your muscles, and a window with a movie will open. The movie is shown if the muscle tension exceeds a certain value (Fig. 16A). But as soon as the muscle tension drops, the screen will go black, as in Figure 16B. In order to continue watching the movie, the muscle must be tensed again slightly. Since the muscle tension requirements are not too high, try to keep the movie going throughout the entire cycle. The cycle of muscle tension lasts 20 - 30 seconds, followed by a rest period when you can relax (Fig. 16C).

The total number of such cycles in Exercise No. 3 is from 4 to 7, and gradually increases as you improve.



12.4 Controlling Exercise No. 3.

The ring diagram in the upper left corner of the screen (Fig. 16A) shows how much time is left until the end of the current cycle. There, in the center of the circle, you can see the number of the cycle and how many cycles are to be completed (for example, 1/5 means that the first cycle of five is in progress).

The button labeled “GRAPH” allows you to go to the window where the muscle tension graph is displayed (Fig. 16D) and, most importantly, where you can use the PAUSE and STOP buttons. From this window you can return to the movie by pressing VIDEO button.

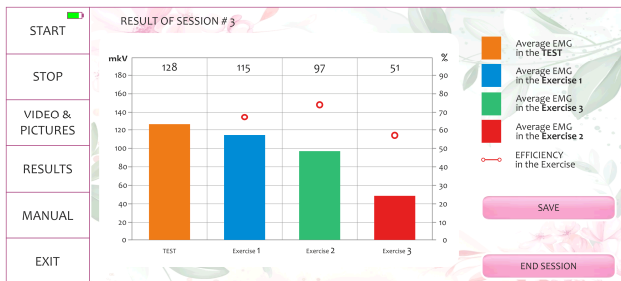
During the rest period in the window with the movie, the control buttons are changed to the ones you already know from the previous exercises (Fig. 16C). The “+” button allows you to increase the rest period by 10 seconds each time you press it. The number of remaining rest seconds is displayed above the “+” button. The remaining rest time is also displayed graphically on the linear bar graph at the top of the screen. The button on the right with the inscription SKIP allows you to end the rest period early and start the next cycle of muscle tension.

Exercise #3 ends with the results window. It contains the same information as in the previous exercises:

- the result of the preliminary test;
- the average value of muscle tension during the exercise;
- the parameter “Efficiency”, which shows the proportion of time (in %) during which the exercise was performed correctly (the movie was shown without turning off the screen).

The “Efficiency” parameter in Exercise #3 is more important because it shows your ability to maintain a prolonged muscle tension.

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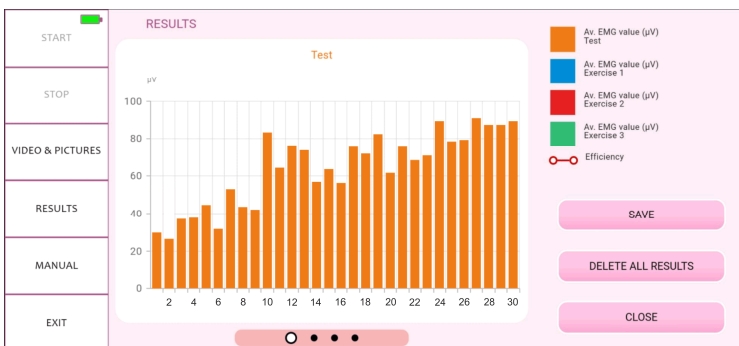
After saving the result of the exercise (SAVE THE RESULT button), a window will appear showing the results of the past training session (Fig. 17).

It shows the values (vertical bars) reflecting the strength of muscle tension during testing and in all three exercises. In addition, it shows the values of the parameter “Efficiency” (red circles).

There are two buttons in the window. The SAVE button saves an image of this window and places it in the phone gallery. The END SESSION button ends the session and returns the application to the initial window.

To close the NuviCor MEWING application, press the EXIT button: the application returns to the start window (Fig. 7). Click on EXIT in the upper right corner of the screen to confirm the exit. The application will close and the LED on the device will stop blinking.

18



13. View training results.

Open the application and press the RESULTS button. This will open a window that graphically displays the results of all your training sessions (Fig. 18).

There are 4 windows with results: TEST and three exercises. The window with the results of

the TEST opens first (Fig. 18). To see the exercise results windows, do a “Swype” - slide your finger across the screen to the left.

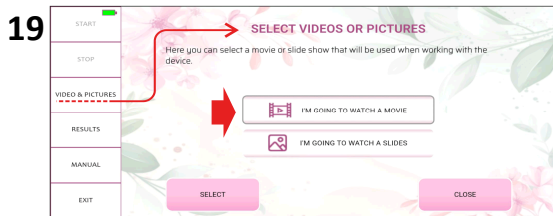
The height of the bars indicates the strength of muscle tension in each session. The numbers at the bottom indicate the session number, the numbers on the left indicate the magnitude of muscle tension in microvolts (mkV). The graphs of exercise results also have circles to indicate the value of the Efficiency parameter

To close the RESULTS window, press the CLOSE button.

To save a screenshot of the window, press the SAVE button.

The application stores the results of 30 sessions. If you have finished a training course and you want to continue training (immediately or after a break), you must clear the RESULTS window of the previous data so that the results of new sessions can be displayed. To do this, press the DELETE ALL RESULTS button and confirm your intention. The previous results will then be deleted.

14. Procedure for selecting movies and slides



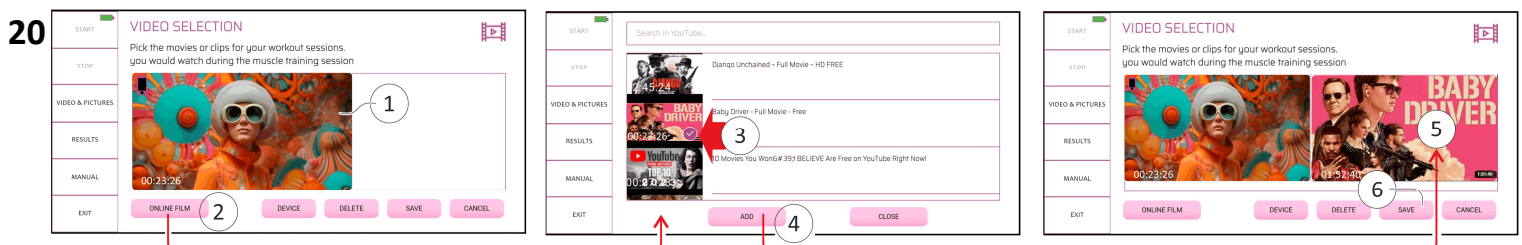
14.1 VIDEO & PICTURES button .

To select the movies or slides you want, press the VIDEO & PICTURES button. This will open the SELECT VIDEOS & PICTURES window, where you can choose whether you want to watch movies or images (Fig. 19).

14.2 Select movies.

To select movies, press the I'M GOING TO WATCH MOVIE button (double click) and the VIDEO SELECTION window will open (Fig. 20). By default, the application is configured to show video clips from YouTube via a predefined link. A screenshot of this video is available in the VIDEO SELECTION window (Figure 20-1). It is this video that is shown as you progress through the exercises if you do not take any action to select a movie.

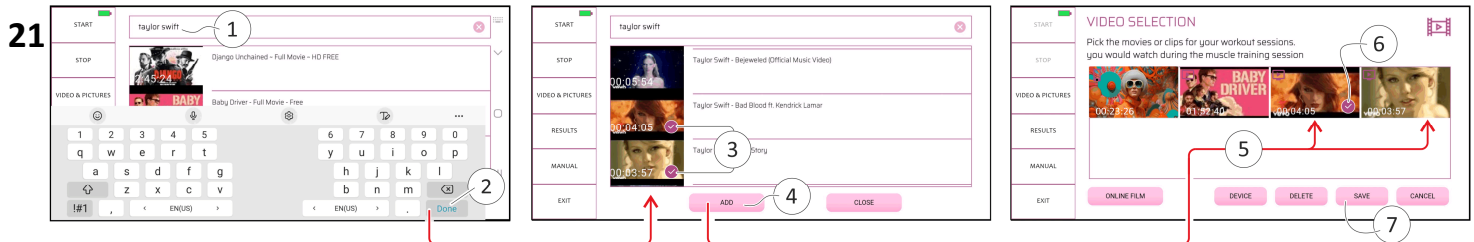
You have the possibility to select movies from two sources: from the Internet or from your phone (or tablet). To do this, use the buttons: ONLINE FILM and DEVICE.



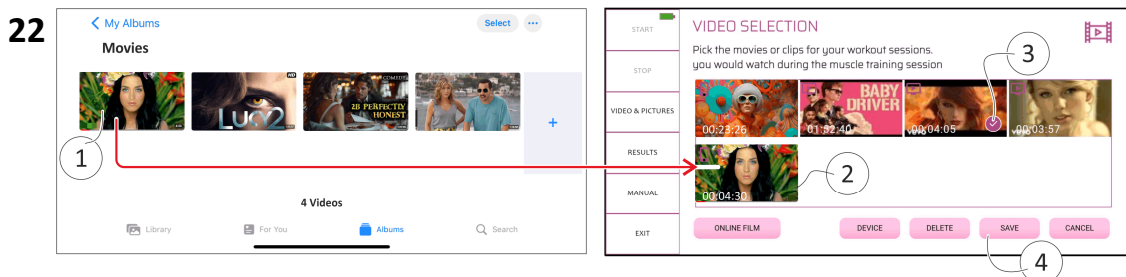
14.2. 1. Let's consider the procedure of selecting a movie from the Internet, from YouTube video service.

By clicking on the ONLINE FILM button (Fig. 20-2) you will open a window where movies from YouTube (free access) are presented - Fig. 20-3. Select one or more movies you are interested in by touching their screenshots and press the ADD button (Fig. 20-4). After that, the screenshot of the selected movie will appear in the VIDEO SELECTION window (Fig. 20-5). Then press SAVE button to confirm your selection (Fig. 20-6).

14.2.2 You can use the “Search” function to find the movie you are interested in. To do this, enter the desired information in the “Search” window, for example, as shown in Fig. 21-1, “taylor swift”, and press the “Done” button (Fig. 21-2) The window will display screenshots of music videos. Select the clip you are interested in, or several (Fig. 21-3) and press the ADD button (Fig. 21-4). After that the selected clips will appear in the VIDEO SELECTION list (Fig. 21-5). Mark the video you want to start watching (Fig. 21-6) and press the SAVE button.

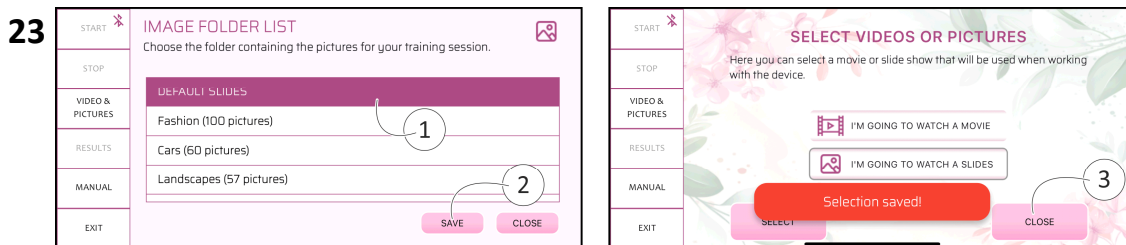


14.2.3. You can select a video from your phone or tablet if it was previously saved in it. To do this, click on the DEVICE button in the VIDEO SELECTION window. The “Movies” (or “Video”) window from your phone will open (Fig. 22). Select the movie you are interested in by clicking on its screenshot (Fig. 22-1) and its image will appear in the VIDEO SELECTION window (Fig. 22-2). Next, select the movie you want to start watching (Fig. 22-3) and press SAVE button.



14.3 Selecting images to view during the session.

To select an image viewing option, in the SELECT VIDEOS & PICTURES window, press the I'M GOING TO WATCH A SLIDES button (double-click) to open the IMAGE FOLDER LIST window. By default, the DEPAULT SLIDES folder is listed (Figure 23-1). In addition to this folder, there are several other links to sets of thematic illustrations such as Fashion, Cars, Landscapes, and others. You can select any of them by clicking on the corresponding title. Next, click the SAVE button. The SELECT VIDEOS OR PICTURES window will open with the message “Selection saved!”. To complete the procedure of selecting media files that will be displayed during the training session, press CLOSE (Figure 23-3).



15. Expected Results

The main thing you expect from the training course is a positive change in your appearance. As you progress through the training course, you can see your muscles change: the graph will show an increase in muscle strength. Typically, this will look like Figure 18.

However, you should realize that neither the device nor the app can measure changes in your appearance. For that, you need to take pictures of your head yourself or with someone else's help. By performing Mewing exercises to restore tone to your mouth diaphragm muscle, you would expect to see a reduction in the severity of a double chin. To do this, you need to take a photo (or better yet, several) before you start your workout to compare with your post-exercise photos. The best angle is a profile photo. It is desirable that the photos are taken in the same position, lighting and distance. Then the result of comparison will be more objective. Samples of this type of photos are shown in the illustrations below.



16. Additional features of the NuviCor MEWING device

NuviCor MEWING is not only used for the Mewing procedure. With the same efficiency you can:

- Get rid of nasolabial folds. This is done by training to strengthen the tone of the zygomatic muscles (Appendix 1);
- Get rid of jowls, “Venus rings” and vertical pulls on the neck by training Platyzma, a thin muscle that smoothes the skin of the neck (Appendix 2);
- make the lips fuller, more expressive and get rid of purse-string wrinkles. This is done by training the circular muscle of the mouth, which forms the lips. (Appendix 3);

- make the nose narrower and more aesthetically pleasing by training the muscles in the nose area. (Appendix 4).

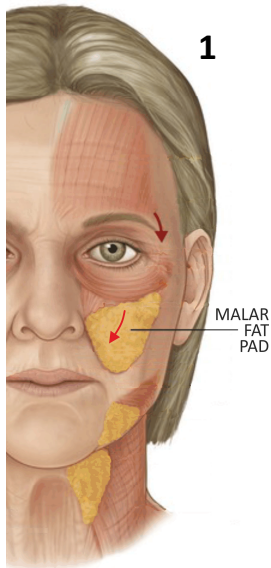
- Get rid of full, drooping cheeks that distort the shape of your face. This is what first catches the eye and is interpreted on a subconscious level as an “aged face”. This is due to the weakening of the cheek muscles. Training them with NuviCor MEWING can quickly restore your attractiveness. (Appendix 5).

It is not recommended to use the NuviCor MEWING to work on muscles that require fixation during exercise to avoid the formation of additional wrinkles. This includes the frontalis muscles, which form horizontal forehead wrinkles, and the bridge of the nose muscles, which form interbrow wrinkles.

There are special devices and sensors to work on these and other facial muscles.

APPENDIX 1

USING THE NUVICOR MEWING DEVICE TO REDUCE THE NASOLABIAL FOLD. TRAINING THE ZYGOMATIC MUSCLES



1. What is the cause of the nasolabial fold?

As we age, the facial muscles weaken, they lose tone and volume. Therefore, they no longer hold the fatty tissue, and it begins to shift downward under the influence of its own weight. This is called gravitational ptosis.

The area of the future nasolabial fold is a denser place than the surrounding skin: there is more fibrous tissue there. Therefore, fat shifting downward cannot cross this area and accumulates above it, forming an overhanging crease. This is the biomechanics of the process.

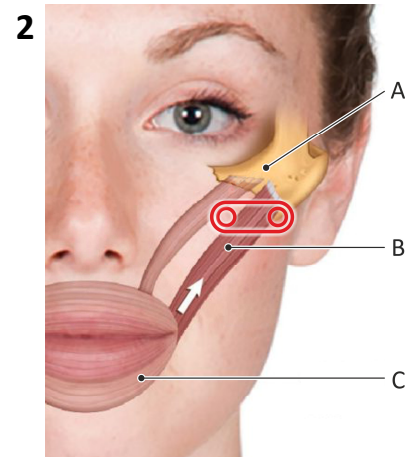
Figure 1 shows how the displacement of the fat pack into the nasolabial region occurs.

2. The way to solve the problem.

It is necessary to restore the muscles whose weakness leads to the formation of nasolabial folds. These are zygomatic muscles. Their location on the face is shown in Fig. 2.

The zygomatic muscle (Fig. 2-B) is attached at one end to the zygomatic bone (Fig. 2-A), and the other end is connected to the outer edge of the circular muscle of the mouth (Fig. 2-C).

The zygomaticus muscle is a mimic muscle. When it is tensed, it forms the expression of a smile on the face: the corners of the mouth are lifted up and stretched to the sides (shown by the white arrow).



To train the zygomatic muscles, the NuviCor MEWING device should be placed on your face as shown in Fig. 3. The metal contacts should touch the skin under the zygomatic bone (shown in red in Fig. 2).

To make the zygomatic muscle tense with great force it is necessary to:

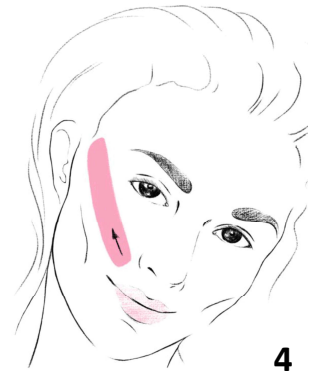
- put your lips behind your teeth, as shown in Picture 3,
- smile, and maintain this effort for the necessary time.

This position of the lips when tensing the zygomatic muscle creates conditions for its isometric tension, which is the most optimal for quick recovery of strength and tone of the muscle.



3. Basic recommendations.

- * Technically, the procedure of training the zygomatic muscles does not differ from the described procedure of working with the muscles of the hyoid area. The only difference is that instead of pressing the tongue against the palate, you try to smile by tensing the zygomatic muscles.
- * All the steps are the same as described earlier: testing and three exercises.
- * If you see on the screen that the zygomatic muscles are not strong enough, you should smile harder and raise the corners of your mouth higher.
- * Make sure that when you tense the zygomatic muscles, you do not tense other facial muscles. Especially the muscles around the eyes can often tense at the same time. Check this with a mirror.
- * Given that the zygomatic muscles are located on both the right and left sides of the face, it is recommended to perform the exercises alternately on one side and the other. For example, all odd-numbered sessions on the right side, even-numbered sessions on the left side. There is no need to be concerned about possible asymmetry, as the muscles on both sides of the face are tensed with the same amount of force, regardless of which side of the face the device is placed on.
- * If your face is asymmetrical from the start and this is noticeable when you smile, do most of the exercises on the side of your face where the corner of your mouth rises less when you smile.
- * The application of tapes to inhibit the formation of nasolabial folds has a positive effect (Fig. 4). It is optimal to use tapes at night to protect against excessive activity of mimic muscles during sleep.



Practice shows that training the zygomatic muscles does not cause difficulties. The only thing you should pay attention to at the beginning of the training course is the correct position of the device on the face, and the need for constant pressing of the metal contacts against the skin during training.

4. Frequently Asked Questions.

Can nasolabial massage help to remove the nasolabial fold?

- Massage can only act as an additional method to improve local blood circulation and lymph flow. It has no effect on increasing muscle strength and tone. It should be borne in mind that muscle contraction is a natural and more important factor affecting the lymphatic and blood circulation of the soft tissues of the face.

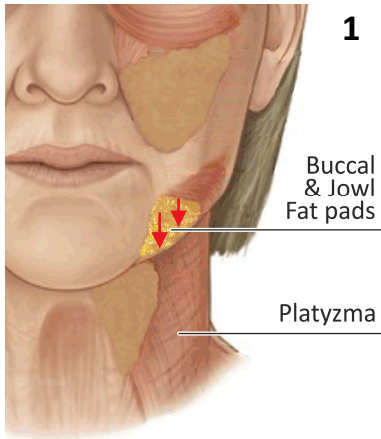
What is the significance of muscle hypertonicity for the formation of the nasolabial fold?

- The zygomatic and cheek muscles, which influence the formation of the nasolabial fold, are never in a state of hypertonus. They only lose strength and tone with age. The only facial muscle that is often in a state of hypertonus is the masseter muscle, which also contributes to the formation of the nasolabial fold. The NuviCor RLX device, which implements neurogenic muscle relaxation technology, is used to overcome the hypertonus of the masseter muscle.

APPENDIX 2

APPLICATION OF THE NUVICOR MEWING DEVICE TO PREVENT THE DEVELOPMENT OF WRINKLES AND WRINKLES IN THE NECK AREA. PLATYZMA MUSCLE TRAINING.

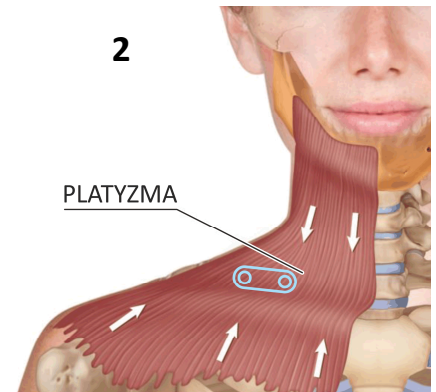
1. What is the cause of jowls?



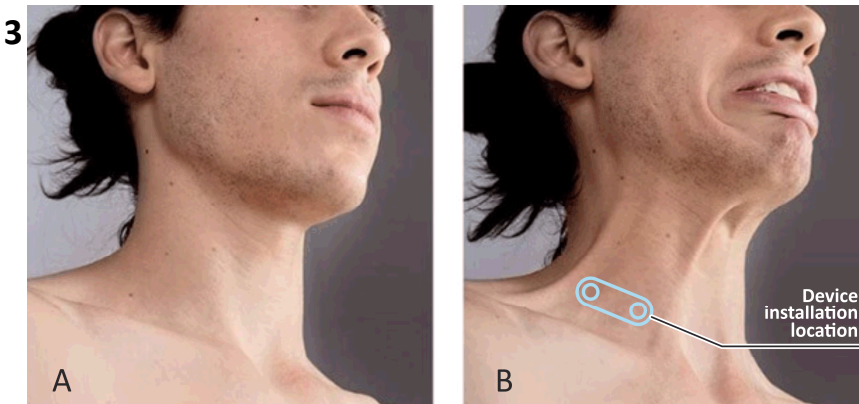
- 1** As we age, muscles weaken. This happens to all muscles, including facial muscles. Normal muscle tone holds the fatty tissue in place and keeps it from shifting under its own weight. That's why there are no puckers at a young age: strong muscles hold the fat "bags" in place and keep them from sliding down the face. But when the muscles weaken, they no longer hold the fat in place. This is how jowls form: the lower parts of the cheek fat packs move downward to form hanging folds of skin. Figure 1 shows this process schematically.

The main muscle that resists the formation of puckers is the flat muscle of the neck - the Platyzma.

The platyzma is a thin muscle that lines the neckline area. It begins below the clavicle, and extends upward to encompass the entire neck and lower jaw, as shown in Figure 2.



2. Method of Platyzma training.



- 2.1** The main thing is to learn how to properly tense the Platyzma. Figure 3 shows what this looks like. The left (A) shows the neck in a relaxed state. The right (B) shows what the neck looks like when the Platyzma is tensed. To do this, you have to pull the corners of your mouth down, but you do this not with your lips, but by tensing the muscles of your neck.

Not everyone can do this at once.

Therefore, you need to practice in front of a mirror.

Often you can find a recommendation: lift the chin up as much as possible and at the same time pull the lips into a tube. To make it clear that this way of Platyzma tension is incorrect, Fig. 4 shows EMG-signals from Platyzma at its correct tension (as shown in Fig. 3) and in the second way. Fig. 4-A shows the correct tension of the muscle and Fig. 4-B shows the incorrect tension. It is obvious that at correct tension the muscle is tensed 4 - 5 times stronger, and this is objective data.

That is why Platyzma should be tensed as shown in Fig. 3 and not in any other way.

4

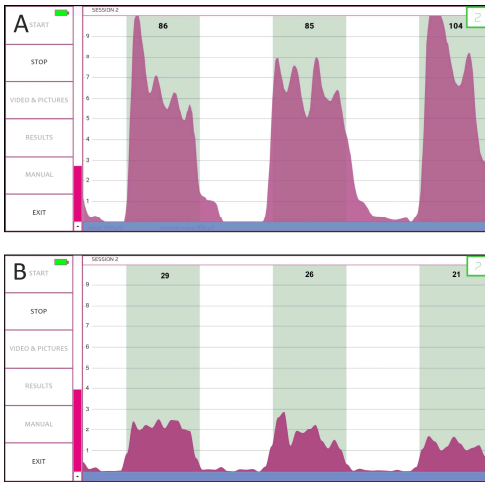


Figure 2 and Figure 3-B show the location (in blue) where the device should be placed. Its metal contacts should be pressed against the surface of the neck just above the middle of the collarbone. It is most convenient to hold the device so that it rests on the collarbone and rests against the skin above it. This is shown in Figure 5.

Remember to keep touching the contact on the device body with the finger of your hand at all times.



3. Basic recommendations.

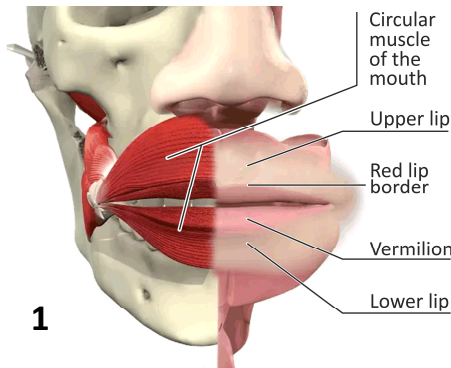
Technically, the procedure for training the Platysma does not differ from the described procedure for working with the muscles of the hyoid region. The difference is that:

- you place the device above the clavicle;
- instead of pressing the tongue against the palate, you tense the Platysma as described above.
- * All training steps are the same as previously described: testing and three exercises following each other.
- * If you observe on the screen that the Platysma tension is not strong enough, you should try to lower the corners of the mouth more, and do so by tensing the Platysma only, without involving the other muscles.
- * Make sure that when you tense the Platysma, you do not tense other facial muscles. It is especially common to tense the cheek muscles and raise the shoulders at the same time. To avoid this, you should work in front of a mirror beforehand.
- * When tensing the Platysma, do not tilt your head downwards or sideways, as this will engage the other muscles of the neck located nearby. Usually, after 3 - 4 sessions, the correct skill of tensing the muscle is developed.
- * Considering that the Platysma is a symmetrical muscle and is located on both the right and left sides of the neck, it is recommended to perform exercises alternately on one and the other side. For example, all odd-numbered sessions - on the right side, even-numbered sessions - on the left side. There should be no fear of possible asymmetry, as both parts of the muscle are tensed on both sides with the same force.

It is not uncommon to encounter the opinion that it is undesirable to train the Platysma because of its possible spasm. This opinion is erroneous and contradicts both knowledge of neuromuscular physiology and practical experience.

In addition, the often recommended taping of the Platysma does not make much sense, since tensing the muscle is the natural and most effective way to increase lymphatic and blood circulation in the soft tissues of the neck.

USING THE NUVICOR MEWING DEVICE
FOR LIP VOLUME ENHANCEMENT AND RELIEF FROM PURSE-STRING WRINKLES.



1. What is the cause of lip volume reduction and the formation of purse-string wrinkles?

The lips are a large muscle that surrounds the mouth in a ring, as shown in Figure 1.

As we age, the volume of the muscle decreases. This causes the lips to become thinner and lose volume and contour. In addition, the loss of muscle volume leads to the formation of pussy wrinkles, as excess skin is formed, which collects in folds.

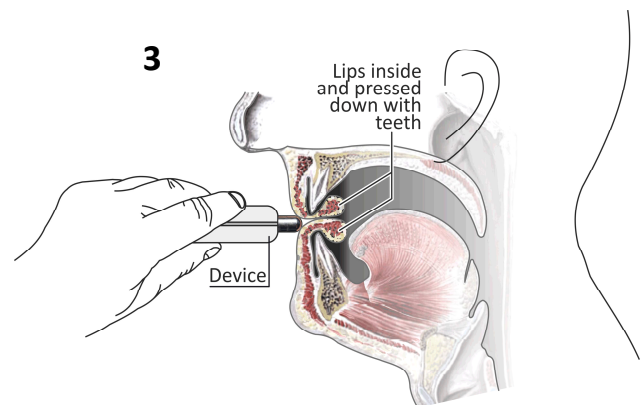
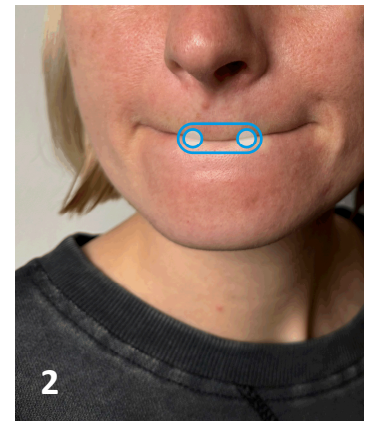
The most effective and safe way to restore and increase the volume of the lips, as well as to get rid of purse-string wrinkles, is to restore the volume of the circular muscles of the mouth.

The only natural method with proven efficacy is training the circular muscle of the mouth.

2. Peculiarities of the procedure of training the circular muscles of the mouth.

It is known that the optimal condition for training any muscle is its isometric tension. This means that when a muscle is tensed, its linear length should not change much. That is, it is necessary to fix the muscle so that its tension leads only to its minimal mechanical movement. To do this, you should wrap your lips behind your teeth and press your lips lightly with your teeth, as you did when practicing cheekbone muscles. Next, press the device with the metal contacts against your lips. In Fig. 2, the point of contact between the device and your lips is shown in blue. Fig. 3 shows the position of the device in profile. Then, while continuing to keep your lips fixed, squeeze your lips as if you were trying to pull them “into a tube”. This is not a difficult movement, but it is desirable to practice it in front of a mirror so that the skill appears. It is this movement that should be performed during training exercises.

In addition to isometric tension of the muscle, the above method of positioning the lips behind the teeth, does not let the purse-string wrinkles increase even with a strong muscle tension.



3. Basic recommendations.

Technically, the procedure for training the circular muscle of the mouth does not differ from the described procedure for working with the muscles of the hyoid area. The difference is that:

- you position the device so that its metal contacts are pressed against your lips, as shown in Figures 2 and 3. Remember to keep touching the contact on the body of the device with the finger of your hand at all times.

- Instead of pressing your tongue against your palate, you tense your lips as described above.

* All training steps are the same as described earlier: testing and the three exercises that follow.

* If you observe on the phonescreen that the tension of the circular muscles of the mouth is insufficient, you should try to tense the lips more, making sure that the lips remain clamped by the teeth.

* Make sure that other facial muscles are not tensed while tensing the lips. Especially the muscles in the eye area can often tense at the same time. Avoid this and check yourself during the first sessions in front of a mirror.

* It is useful to use tapes, especially at night, before going to bed. This prevents wrinkles from getting worse when the facial muscles are tensed during sleep. There are many informational resources available to familiarize yourself with the taping procedure, such as:

<https://blog.ochsner.org/articles/face-taping-for-wrinkles-does-it-work-and-are-there-risks>

<https://www.byrdie.com/face-tape-for-wrinkles-5224628>

<https://www.youtube.com/watch?v=QKlrDgTxckg>

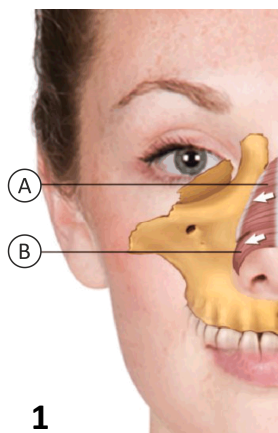
<https://www.youtube.com/watch?v=HVjVm07nWiQ>

* Take photos before and after the training course, full-face and profile. It is desirable that the photos are taken in the same position, lighting and distance. Then the result of the comparison will be more objective.



APPLICATION OF NUVICOR MEWING FOR NOSE REDUCTION

It is known that the size of the nose increases with age. This process is facilitated by the fact that the muscles surrounding the nose become weak and lose their volume and tone. Gradually, these muscles cease to hold the edges of the nasal cartilage with their tone, and as a result, the nose becomes wider, giving the face a less aesthetic appearance.



1

Fig. 1 shows the main muscle of the nose (musculus Nasalis). It has two parts (A and B in Figure 1) that, when tensed, compress the cartilage, narrow the nose, lower the nasal wings, and narrow the nostrils.

There are other small muscles in the nasal region that tense in synchrony with the main muscle.

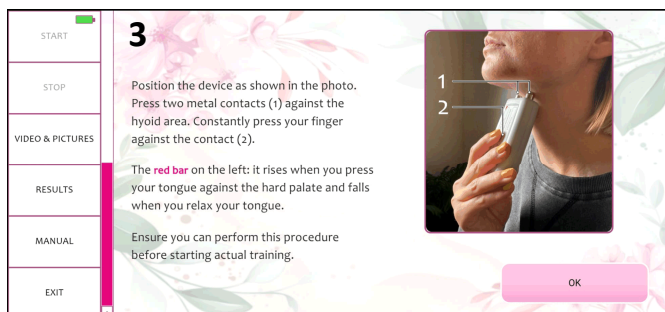
In order to restore the volume and tone of the nose muscles, it is necessary to do exercises: tense the muscles intensively and repeatedly. However, the problem is that the muscles of the nose are mimic muscles that work reflexively and are tensed not

consciously, but during our emotional reactions, giving the face a characteristic expression. Therefore, it is not an easy task to tense the muscles of the nose with willpower. The NuviCor MEWING device is designed to help you control the actual tension of your nasal muscles so that you can exercise as effectively as possible, rather than relying on your own sensations, which are often deceptive.



2

Figure 2 shows how to install the NuviCor MEWING device in the nose area. Its metal contacts should rest against the skin above and below the nostril. Be sure to wipe the skin in this area with a tissue and apply a drop of gel. As usual, either finger of the hand you are holding the device with should be touching the metal contact on the device body.



First, you need to learn how to tense your nose muscles. The best way to do this before you start exercising is to use the PREVIEW option. Open the NuviCor MEWING application, wait for the device to connect (blinking indicator light), and press the PREVIEW button. In the opened window (Fig. 3) you should observe the height of the red bar, which objectively reflects muscle tension. First, relax the muscles and make sure that the height of the bar is

minimal. Then tense the muscles of the nose. To do this, try to squeeze the nostrils. If this is problematic, lift the tip of your nose with the finger of your free hand and try to press your nose on your finger (not by tilting your head, but by tensing the muscles of your nose). The red bar on the

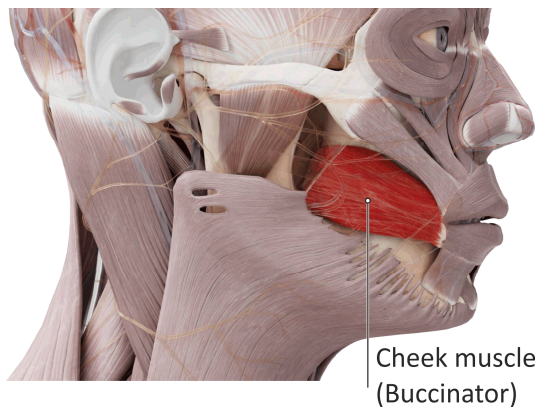
screen will start to rise up. Make several such attempts to make sure that you are able to tense your nose muscles.
Do not forget that the device must be constantly pressed against the skin, and do it without effort.

Once you are satisfied that you are able to tense the muscles of your nose, start the exercises. Do not skip the testing procedure at the beginning of each session.

3. Basic recommendations.

- * Technically, the procedure of training the muscles of the nose does not differ from the described procedure of working with the muscles of the hyoid area. The difference is that:
- you position the device so that its metal contacts are pressed against the skin above and below the nostril, as shown in Figure 2. Remember to keep touching the contact on the device body with the finger of your hand at all times.
- * Instead of pressing the tongue against the palate, you tense the muscles of the nose as described above.
- * All training steps are the same as described earlier: testing and three exercises following it.
- * If you observe on the screen that the strength of the nasal muscle tension is insufficient, use the finger of your free hand and lift the tip of the nose as described above.
- * You should know that the nasal muscles are small and relatively weak. Therefore, training them is not an easy task and requires patience and will. It is especially difficult to perform Exercise No. 3 for prolonged retention of muscle tension.
- * Make sure that while tensing the muscles of the nose, other facial muscles are not tensed. Especially often the muscles between the eyebrows and the upper lip can be tense at the same time. You should avoid only a strong tension of these muscles: a slight tension of these muscles is natural and safe. Use a mirror to control this.
- * Application of tapes to improve the skin around the nose does not bring any results.
- * Massaging the nose and the soft tissues around it is ineffective and unsafe. It should be avoided.
- * Take photos before and after the training course, in full-face and in profile. It is desirable that the photos are taken in the same position, lighting and distance. Then the result of the comparison will be more objective.

APPLICATION OF NUVICOR MEWING FOR CHEEK LIFTING



1 1. The cosmetic role of the cheek muscles.
 The condition of your cheek muscles determines the shape of your face. As you age, your cheek muscles weaken and your cheeks become saggy and flabby. This is what first catches the eye and is interpreted subconsciously as an “aged face”. The position of the cheek muscles (m. buccinator) is shown in Figure 1

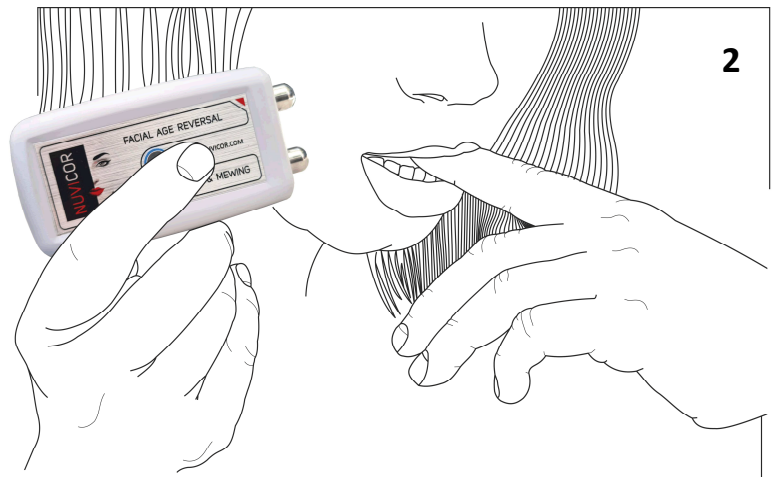
The only scientifically proven way to restore muscle strength, volume and tone is to train them. The term “training” is considered here in its original and strict sense, as repeated and

forceful exertion of a muscle.

2. Features of cheek muscle training exercises.

In order to train the cheek muscles with maximum efficiency, two conditions must be met. The first is the isometric tension of the muscle. This means that the muscle should not change its length during its tension. To do this, put a finger in your mouth and press it against the inside of your cheek, stretching it slightly (Fig. 2). Try to tense the cheek against the pressure of the finger. This is what provides isometric tension to the cheek muscle.

The second condition for effective training is to control the strength of the muscle tension. This is exactly what the NuviCor MEWING is designed to do. As you tense your muscles, you can see on your phone's screen the actual strength of your muscles and increase it with willpower. Without NuviCor MEWING, you will tense your muscles thinking you are tensing them with enough force. But experience shows that your perceptions never match reality, and your muscles tense too weakly. This is why training without the NuviCor MEWING is most often ineffective.



So, place the NuviCor MEWING device as shown in Fig. 2, pressing its metal tabs against your cheek. The finger that you pressed against your cheek from the inside will feel the touch of the device from the outside.

Tense the cheek muscles as described above, trying to counteract the pressure of your finger. At the same time, make sure that the device remains pressed against the skin of your cheek at all times.

It is best if you practice using the PREVIEW window of the application beforehand. Trace the vertical movements of the red bar and control the pressure of your finger on the inside of your cheek, and the pressure of the device on the outside.

At first glance, this looks like a complicated procedure. But if you devote a few minutes to acquiring the skill, you will find this exercise simple and easy to do.

Remember to apply a drop of gel on the skin of your cheek.

While holding the device in your hand, make sure that any of your fingers are constantly touching the contact on the body of the device.

3 Basic recommendations.

* Technically, the procedure of training the cheek muscles does not differ from the described procedure of working with the muscles of the hyoid area. The only difference is that instead of pressing the tongue against the palate, you tense the cheek muscle.

* All training steps are the same as described earlier: testing and three exercises following it.

* If you observe on the screen that the strength of the cheek muscle tension is insufficient, you should increase the pressure of your finger from inside the cheek a little and tense the muscle more, counteracting this pressure.

* Given that the cheek muscles are on both the right and left sides of the face, you should perform the exercises alternately on one side and the other. For example, all odd-numbered sessions on the right side, even-numbered sessions on the left.

* If your face is originally asymmetrical in the cheek area, do most of the exercises on the side of the face where the cheek muscle is weaker.

* There will be no positive effect from applying taping to the cheek area, so don't waste your time.

* Facial massage in the cheek area does not lead to any positive effects.

Practice shows that training cheek muscles does not cause difficulties. The only thing you should pay attention to at the beginning of the training course is the correct position of the device, and observance of the requirement to keep the contacts pressed against the skin at all times during the exercises.

Take photos before and after the training course, in full-face and in profile. It is desirable that the photos are taken in the same position, lighting and distance. Then the result of the comparison will be more objective.