

EAR INSUFFLATION

WHO CAN BENEFIT?

- Ear Insufflation is considered systemic to the head
- Patients who have the following:
 - Sinus Infections
 - Tinnitus
 - Pre/Post Dental Work
 - Mold Exposure
 - Macular Degeneration
 - Brain Fog
 - Preventative care

HOW IS EAR INSUFFLATION DONE?

Ozone gas is transferred into either a syringe or through a modified stethoscope and then ran into the ears

VOLUME AND CONCENTRATION OVERVIEW

Stethoscope (with water bubbler) method:

Duration:

- 2– 6 mins

Concentration:

- 10 - 25 ug/ml - for adults
- Start with a low concentration (10 gamma) and duration (2 mins) then work up
- Please make sure you have a fan to help dissipate the residual ozone
- Open window would be best

Low and Slow Protocol

- Flow rate of oxygen should be below 1/4 lpm and will vary depending on your machine
- First treatment is 2 minutes at around 10 gamma and 3 times per week.
- Titrate up 30 seconds up every session to the final time of 6 mins per session
- After 1 month start this process over, but now at 20-25 gamma at 3 times a week and work up the final time of 6 mins a treatment
- Add additional days of therapy depending on patient tolerance

Aggressive Protocol

- Start patient off for 4 minutes at 20-25 gamma at 5 times a week
- Titrate up 30 seconds each treatment until patient reaches 6 mins a treatment
- Practitioner can decide to go up to 7 days a week at the 6 mins/20-25 gamma

Syringe Method

- How this is done: A syringe is connected directly to the ozone generator to fill it and then the ozone is pushed into the ears slowly.
- Why this method is good: Super cheap and easy, all you need is an ozone machine, moist cotton ball, and a 60ml syringe.
- Why this method is bad: This is often used with kids since you only need a small amount of volume and could lack effectiveness - you can always do more volume.

VOLUME, DURATION, CONCENTRATION

Volume:

- 10 – 60 mL per ear

Concentration:

- 10 - 25 ug/ml - for adults
- Use moist cotton ball in ear to push ozone through
- Start with a low concentration (10 gamma) and work up
- Please make sure you have a fan to help dissipate the residual ozone

Low and Slow Protocol - Syringe Method

- First week - 15 ml of 10 gamma in each ear for 2 - 3 times per week
- Second week - 15 ml of 15 gamma in each ear for 2-3 times per week
- Third week would be 15 ml of 25 gamma in each ear for 2-3 times per week
- Fourth week - Start this process over, but now at 30 ml of 20-25 gamma at 3 times a week
- Practitioner may add additional days of therapy depending on patient tolerance

Aggressive Protocol – Syringe Method

- Start patient off on 30 ml of 15 gamma per ear 3 times per week
- Second week - 60 ml of 25 gamma per ear 3 times per week
- Third week - 60 ml of 25 gamma per ear 3 times per week where they will stay
- You can add additional days to the protocol as the patient tolerates

Stethoscope ONLY Method

Duration:

10 - 30 mins

Concentration:

10 - 25 ug/ml - for adults

Start with a low concentration 10 gamma and 10 mins, then work up by 5 gamma and mins each session.

Please make sure you have a fan to help dissipate the residual ozone

Open window would be best

PROTOCOL SUMMARY

- Most chronic conditions require between 5-7 days a week for a couple weeks
- Most acute conditions require 3-5 days for a couple weeks and then back down into a maintenance frequency
- Maintenance is 2-3 times a week
- Volume for syringe method 10 - 60 ml per ear
- Concentration ranges are between 10 - 25 gamma
- Start everyone off at the lowest concentration first for EI

THINGS TO REMEMBER/KNOWLEDGE TRANSFER

- Start everyone off at the lowest concentration and duration first on EI
- You do not want to press the stethoscope into the ears, as the pressure build up could cause damage to the eardrum
- This treatment can emit a lot of ozone into your room, so a floor fan would be ideal to help prevent coughing or watery eyes.
- Ear insufflation can cause a herx reaction that can cause a rash or some lymph drainage
- Doing too long or strong of a session can cause the ear canal to become weepy or dry the canal out.
- Some patients can experience a headaches from this type of therapy.
- If your patient has an adverse reaction, then you would want them to take a 3- 5 day break and then start back on ½ as much concentration and volume that caused the herx