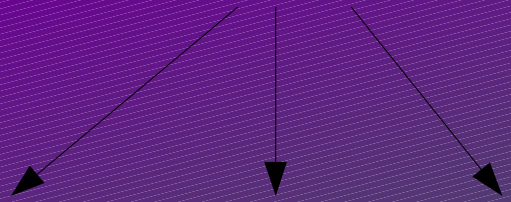
voce?



Fisico acustico psicologico

Strumento musicale

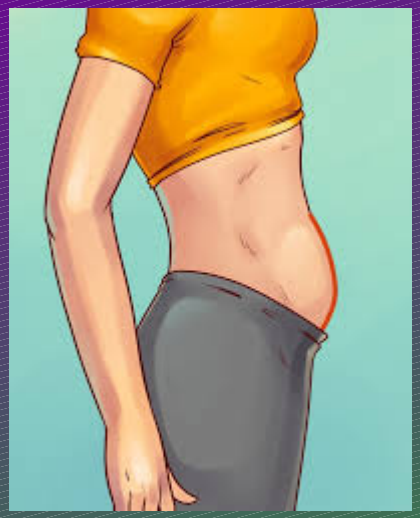
Voce fisica

Generatore

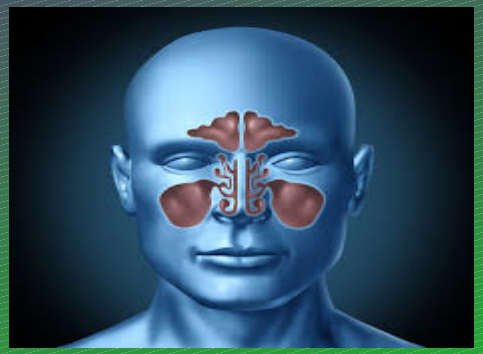
impulso

propagazione

Voce fisica



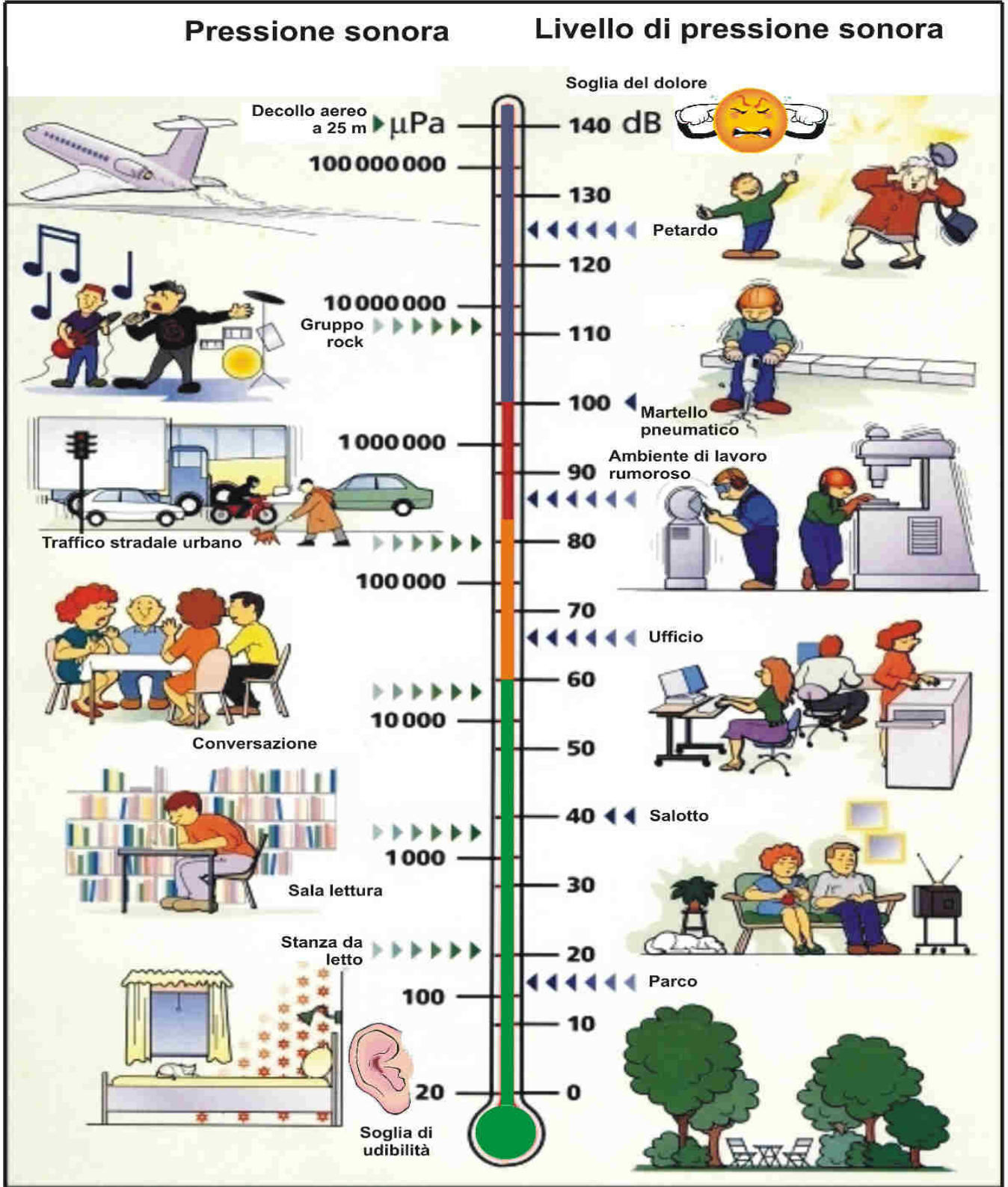
Voce acustica



Volume

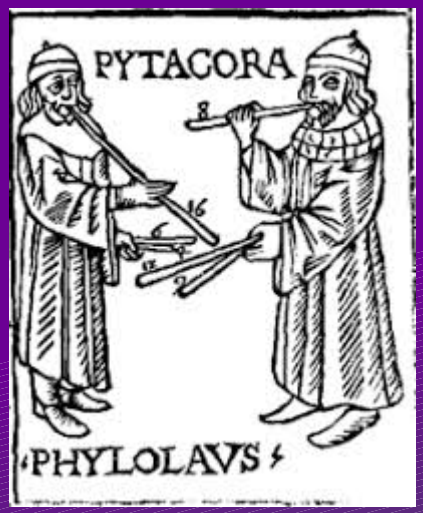
frequenza

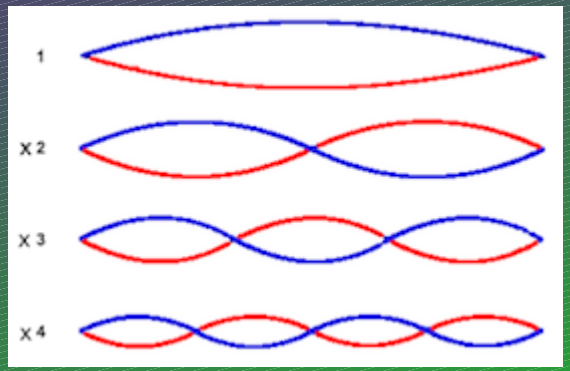
timbro


Pressione sonora
Livello di pressione sonora
Soglia del dolore
Decollo aereo a 25 m
μPa
140 dB
100 000 000
130
Petardo
120
10 000 000
Gruppo rock
110
100
Martello pneumatico
1 000 000
Ambiente di lavoro rumoroso
90
Traffico stradale urbano
80
100 000
70
Ufficio
60
10 000
Conversazione
50
40
Salotto
1 000
Sala lettura
30
Stanza da letto
20
Parco
100
10
20
0
Soglia di udibilità

$f_{réf}$ (Hz)	440

Ton	Note	Octave 1	2	3	4	5	6	7	8	9
1	do	32,703196	65,406391	130,81278	261,62557	523,25113	1046,5023	2093,0045	4186,009	8372,0181
2	do#	34,647829	69,295658	138,59132	277,18263	554,36526	1108,7305	2217,461	4434,9221	8869,8442
3	ré	36,708096	73,416192	146,83238	293,66477	587,32954	1174,6591	2349,3181	4698,6363	9397,2726
4	ré#	38,890873	77,781746	155,56349	311,12698	622,25397	1244,5079	2489,0159	4978,0317	9956,0635
5	mi	41,203445	82,406889	164,81378	329,62756	659,25511	1318,5102	2637,0205	5274,0409	10548,082
6	fa	43,653529	87,307058	174,61412	349,22823	698,45646	1396,9129	2793,8259	5587,6517	11175,303
7	fa#	46,249303	92,498606	184,99721	369,99442	739,98885	1479,9777	2959,9554	5919,9108	11839,822
8	sol	48,999429	97,998859	195,99772	391,99544	783,99087	1567,9817	3135,9635	6271,927	12543,854
9	sol#	51,913087	103,82617	207,65235	415,3047	830,6094	1661,2188	3322,4376	6644,8752	13289,75
10	la	55	110	220	440	880	1760	3520	7040	14080
11	sib	58,27047	116,54094	233,08188	466,16376	932,32752	1864,655	3729,3101	7458,6202	14917,24
12	si	61,735413	123,47083	246,94165	493,8833	987,7666	1975,5332	3951,0664	7902,1328	15804,266





Construction de la gamme de pythagore

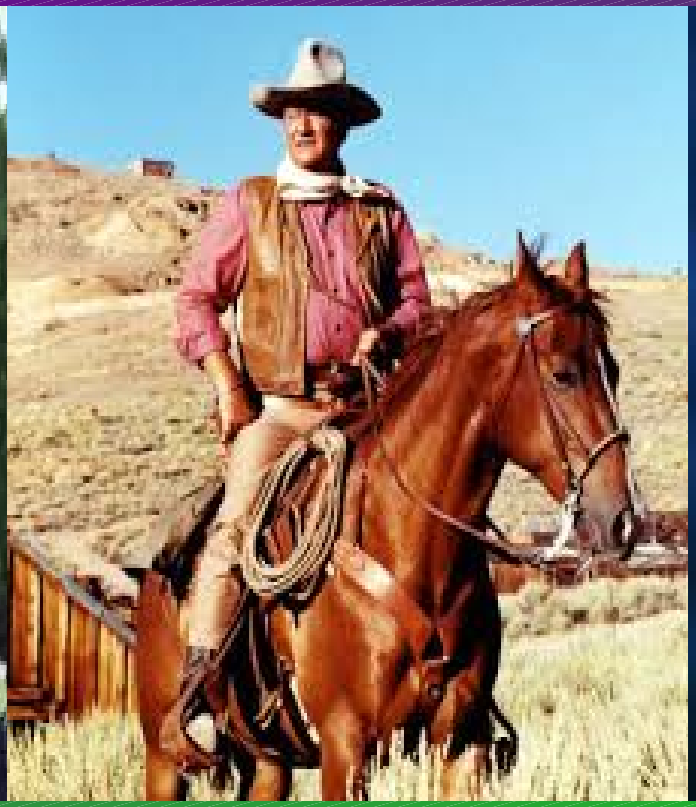
Note	Fréquence (Hz)	Harmonique
Do	**256**	fondamental
Ré	288	
Mi	**324**	Tierce : n°5 : 324 = 5 x **256** / **4**
Fa	341,3	
Sol	**384**	Quinte : n°3 : 384 = 3 x **256** / **2**
La	432	
Si	486	
Do	**512**	Octave : n°2 : 512 = 2 x **256**

Cycle des quintes :

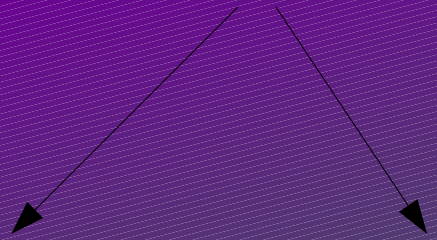
Do → Sol → Ré → La → Mi → Si → Fa# → Do#
→ Lab → Mib → Sib → Fa → Do

frequenza/lunghezza cordale

risonanza

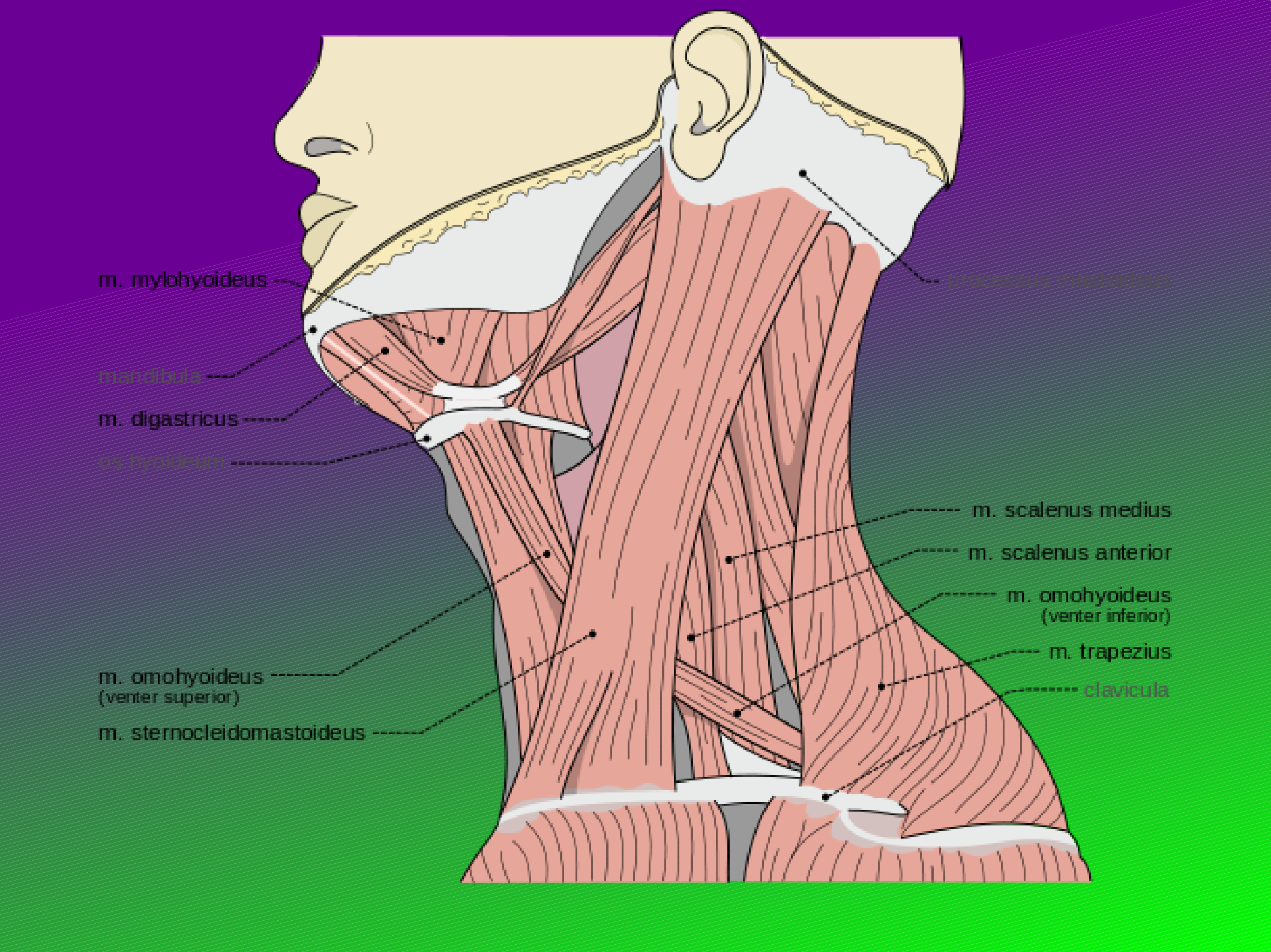


respirazione

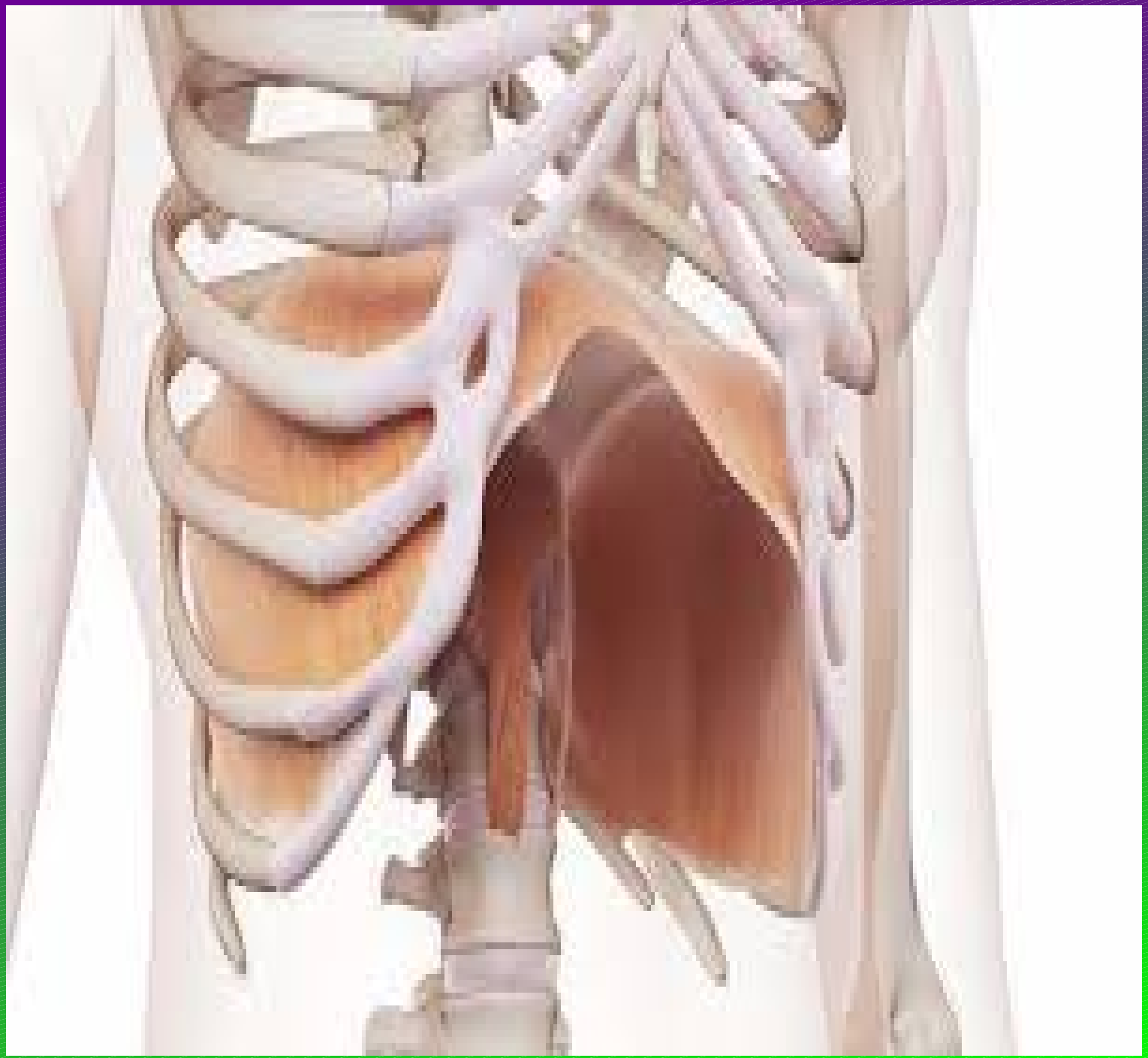


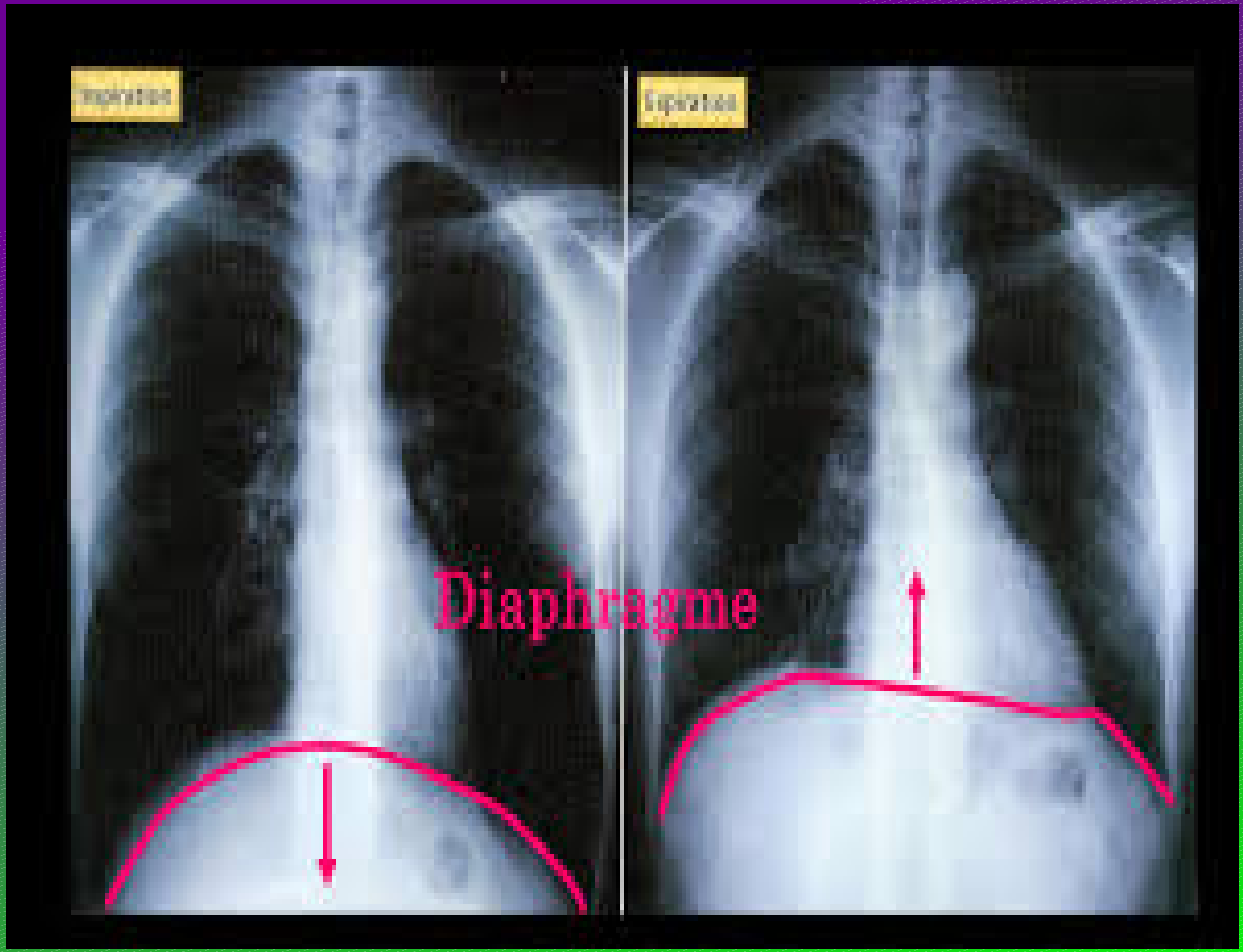
Inspira

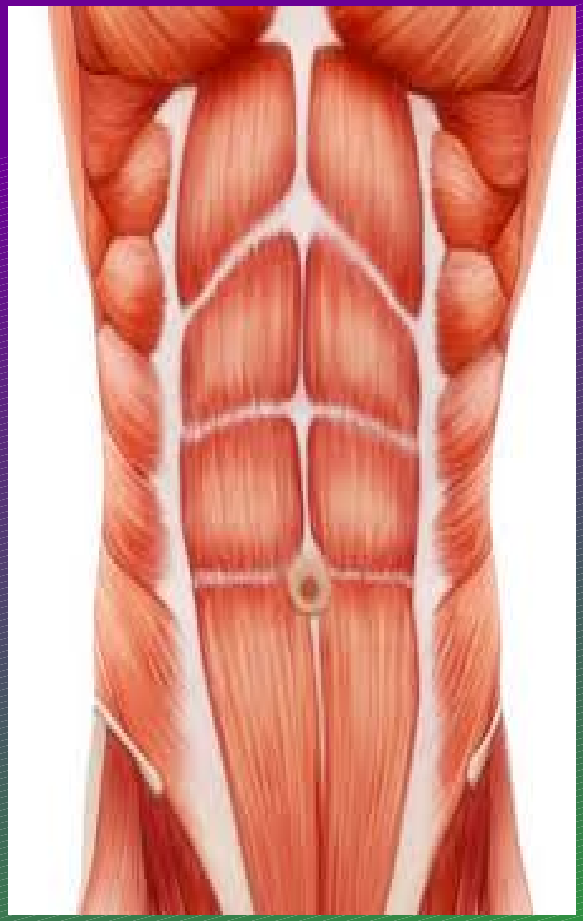
espira

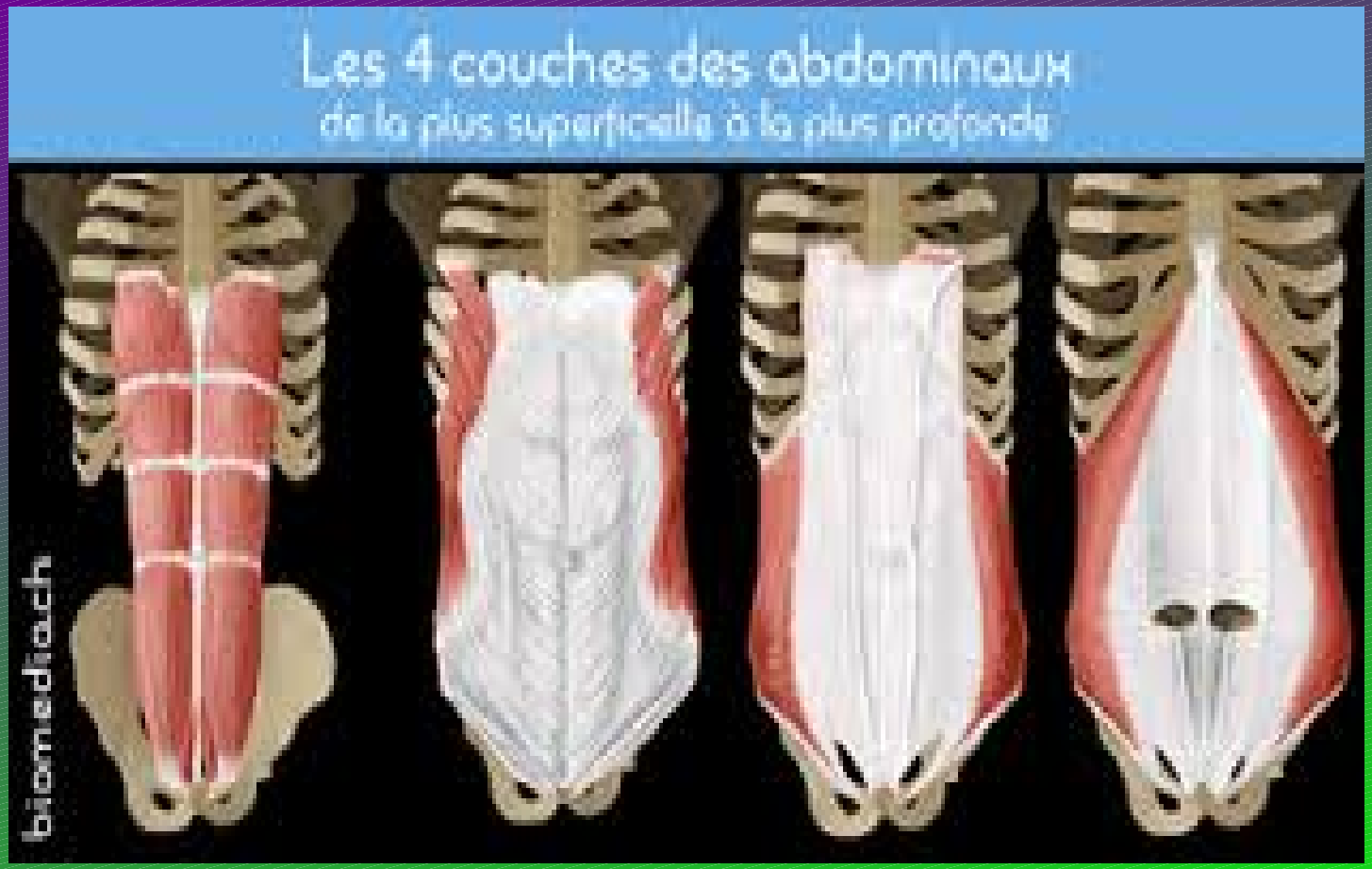

m. mylohyoideus
mandibula
m. digastricus
os hyoideum
m. omohyoideus
(venter superior)
m. sternocleidomastoideus
processus mastoideus
m. scalenus medius
m. scalenus anterior
m. omohyoideus
(venter inferior)
m. trapezius
clavicula

iStock




Inspiration
Expiration
Diaphragme




Les 4 couches des abdominaux
de la plus superficielle à la plus profonde
biomedtech

Esercitazione respiratoria

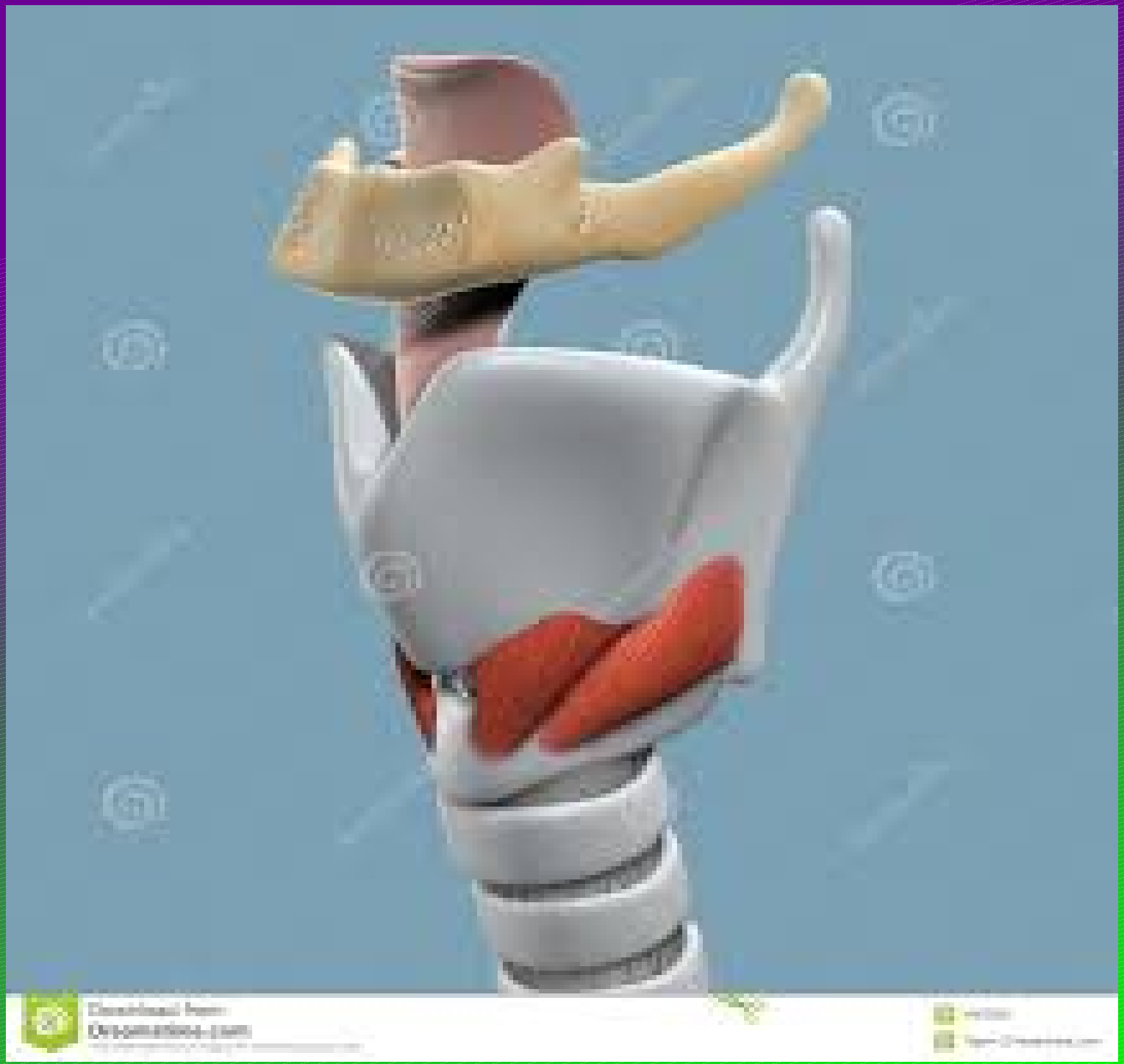
Tipi di respirazione:ETA

neonati a termine :40/minuto
neonati prematuri:60/minuto
adulto:18/minuto
geriatrico:fonastenia

postura

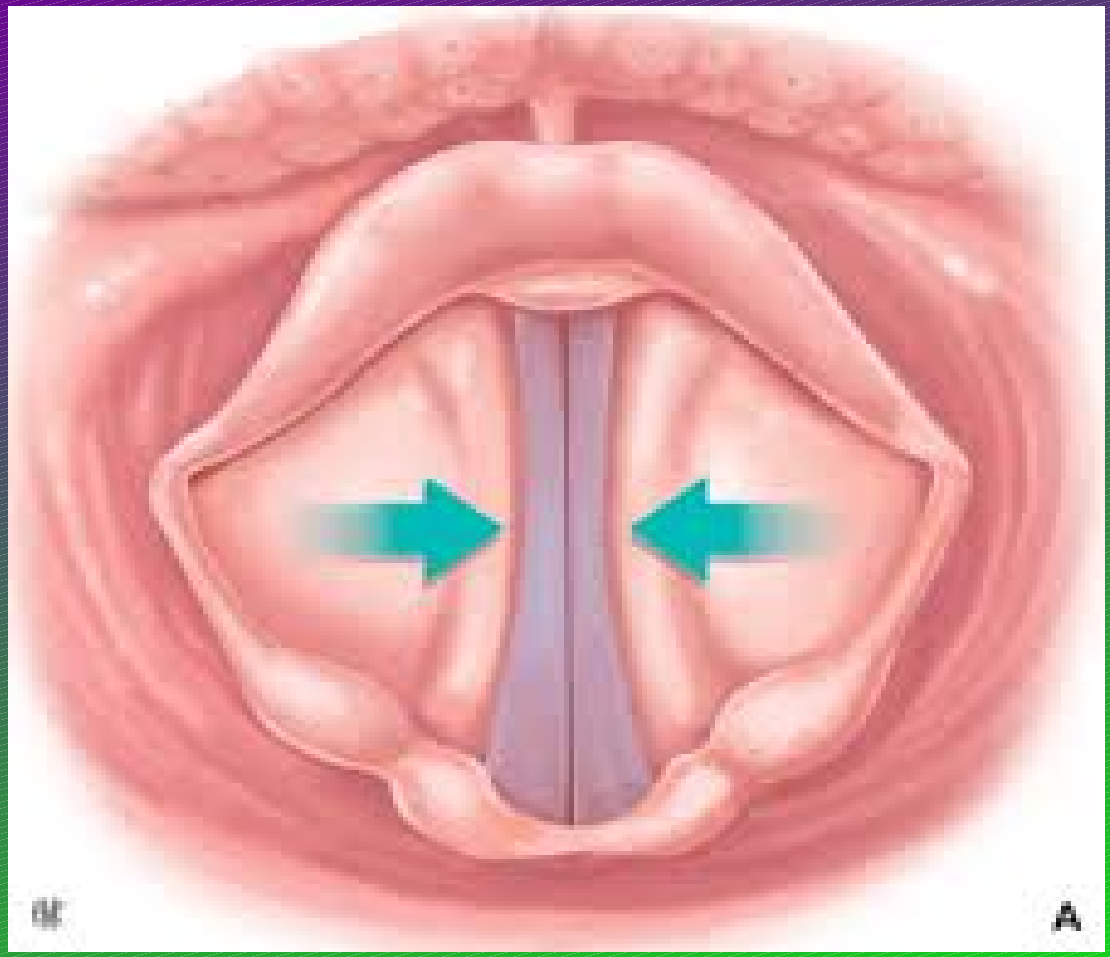
postura:equilibrio tridimensionale

cifosi/lordosi
diaframma/addominali
addominali /dorsali

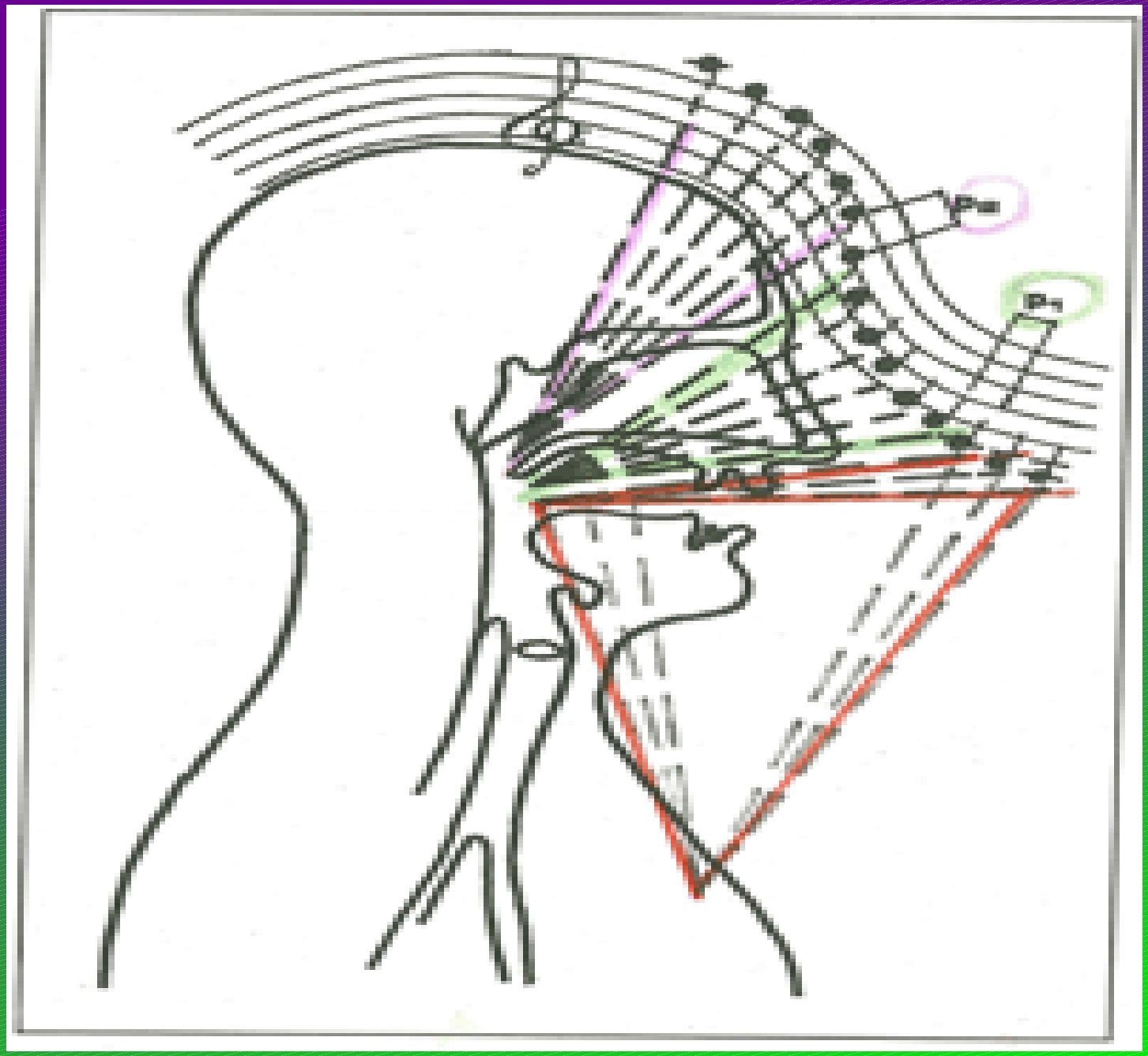


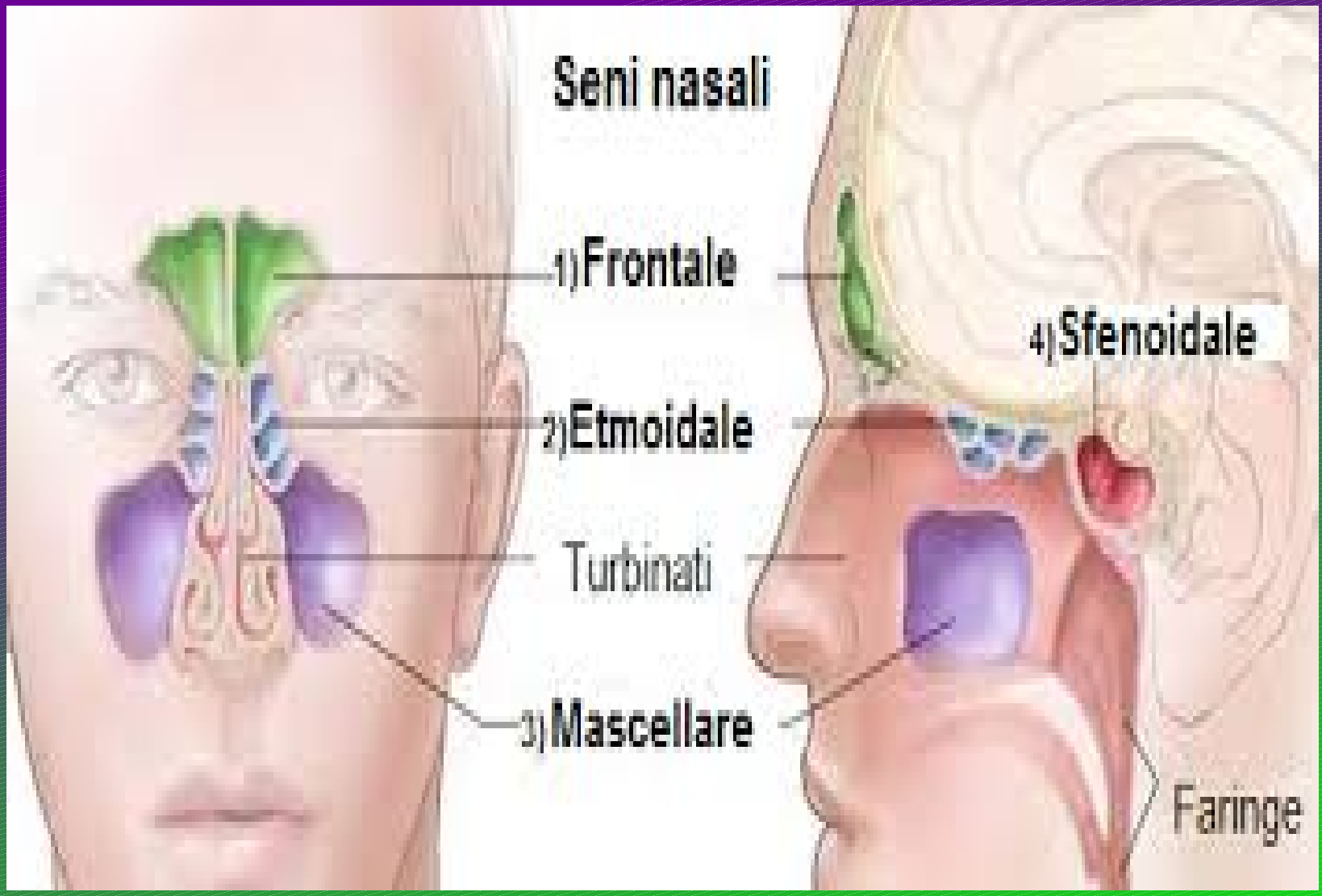
Corde ipotoniche

Corde serrate



Esercitazione cordale

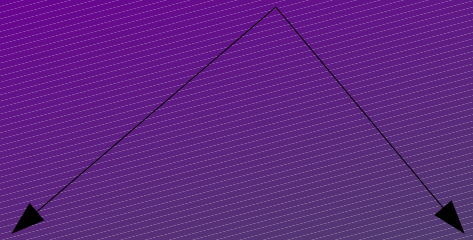



Seni nasali
1)Frontale
2)Etmoidale
Turbinati
3)Mascellare
4)Sfenoidale
Faringe

Seni paranasali

Esercitazione espressiva

consigli



Gestione quantitativa e qualitativa

quantitativa

Pause vocale
Non superare i limiti di resistanza

qualitativa

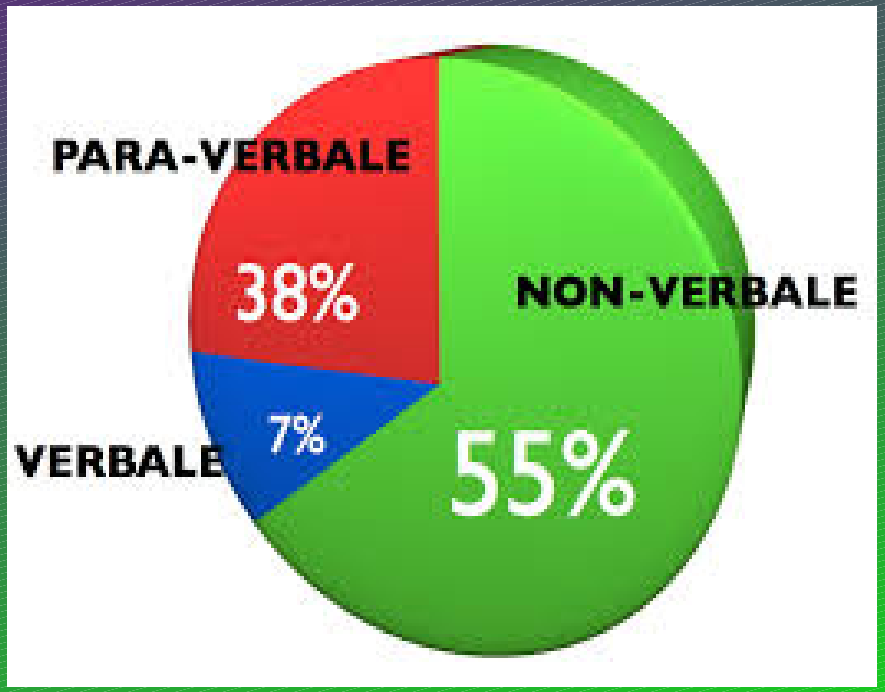
Uso del volume

-espressione impulsiva dell'umore

-coprire una distanza

-coprire un fondo sonoro alto

Igiene vocale

- Idratarsi
- Evitare sbalzi di temperatura
- Coprirsi la gola
- Cambiare spesso l'aria
- Evitare l'uso del gesso
- Muoversi durante le lezioni
- Fare attività fisica
- Riscaldarsi la voce
- Raffreddarsi la voce
- Cantare

comunicazione!!!