



SNORING & OSAHS SURGERY

International Workshop



CONSERVATIVE OPTIONS

<15'

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AIMS Board
&
ENT-MaxilloFacial
Joint Commission



The well-known motivational theorist,
Abraham Maslow, once commented: "*If* the
only tool *you* have is a *hammer*, *you* will see
every problem as a nail. ...

Why a Surgeon is requested to know not surgical approaches ?

In order to avoid that the suggested treatment may be only according to the physician (and not physician...) personal competence instead that according to patient's requirement :

neurologist, pneumologist

dietologist

ENT

maxillo-facial

oral surgeon

orthodontist

pharmacist

general practitioner

wife

husband

room

nCPAP

weight loss

soft tissue surgery

bone framework surgery

oral device

maxillary expansion

nasal dilators

don't worry !

husband's leg kicking

sleeping in a different

Treatment

- ✦ **Nonsurgical modalities**
- ✦ **Surgical modalities**

Available Options

- ✦ **Wait & See**
- ✦ **Sleep Hygiene**
- ✦ **Positive Pressure Ventilation**
- ✦ **Oral Appliances**
- ✦ **Weight Loss**
- ✦ **Drugs**
- ✦ *other*

WAIT & ... HEAR - Applications

- ✦ Simple Snoring
- ✦ Without Familiar or Social Impact
- ✦ UARS or OSAHS if symptoms & PSG parameters are below the therapy applications rules
- ✦ old patients with minimal complaints

Sleep Hygiene

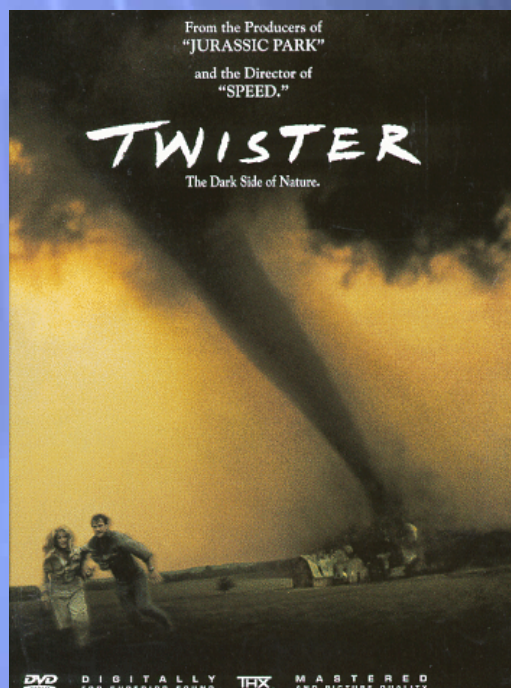
- ✦ Limit caffeine, alcohol, smoking, heavy meals
- ✦ Avoid bedtime TV, reading, sedatives
- ✦ May sew tennis ball into T-shirt to avoid supine position

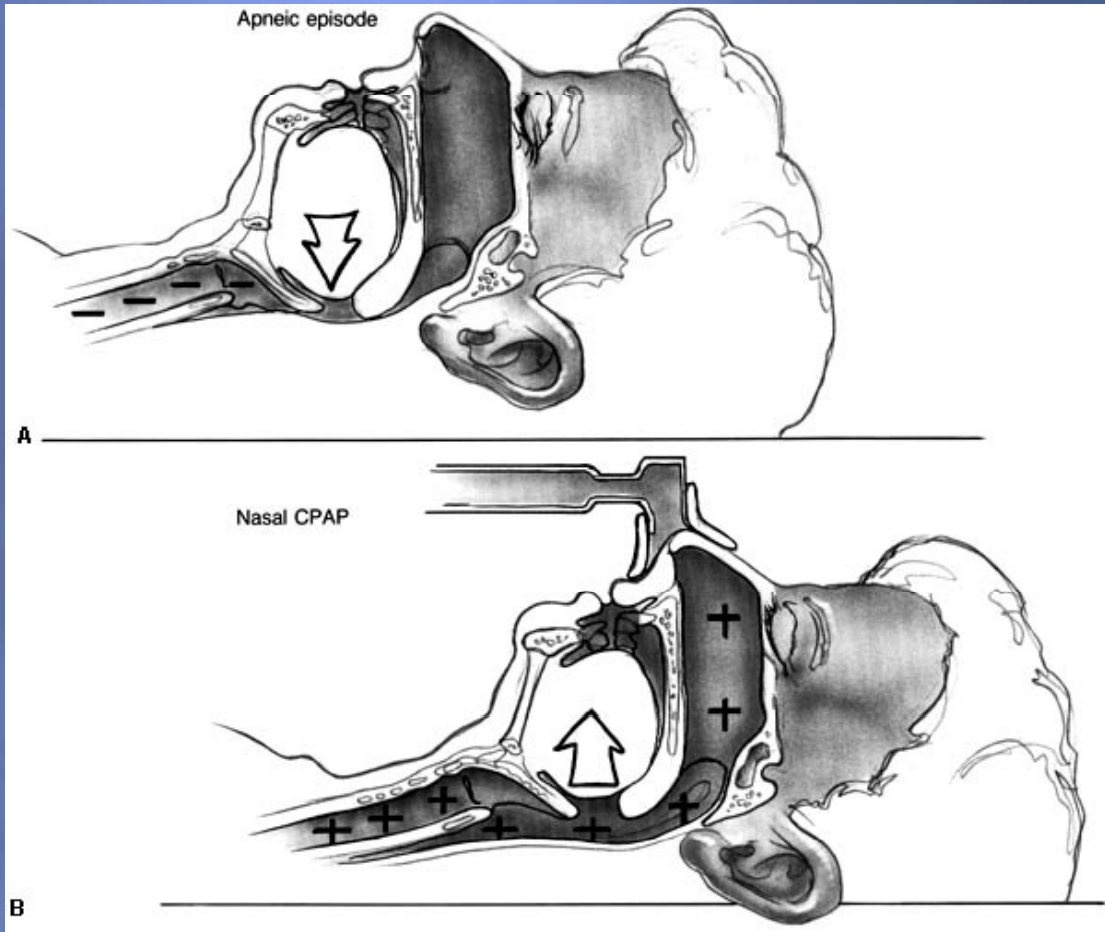
Continuous Positive Airway Pressure (CPAP)



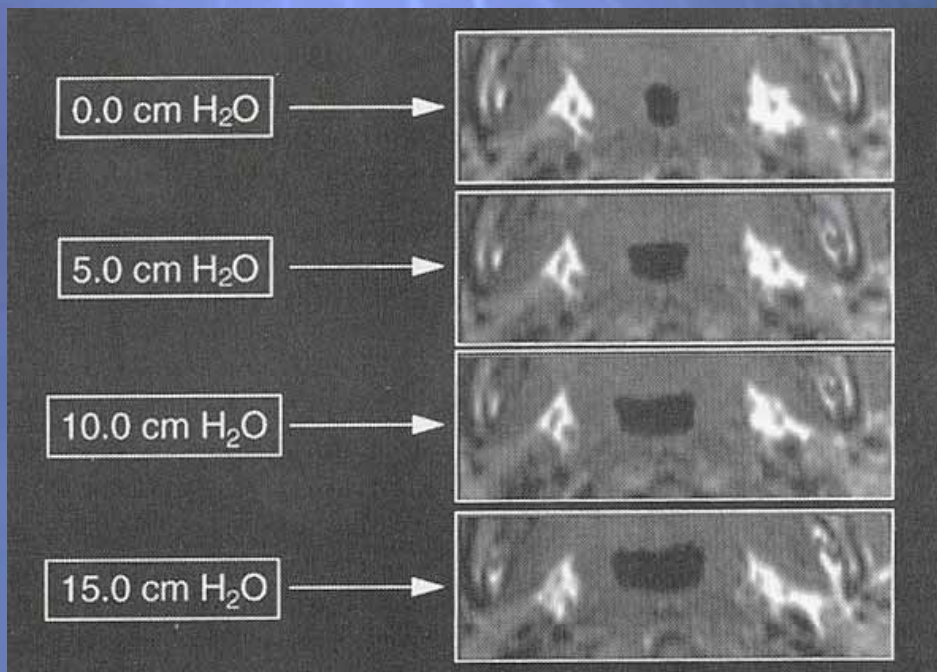
CPAP

★ Sullivan 1981

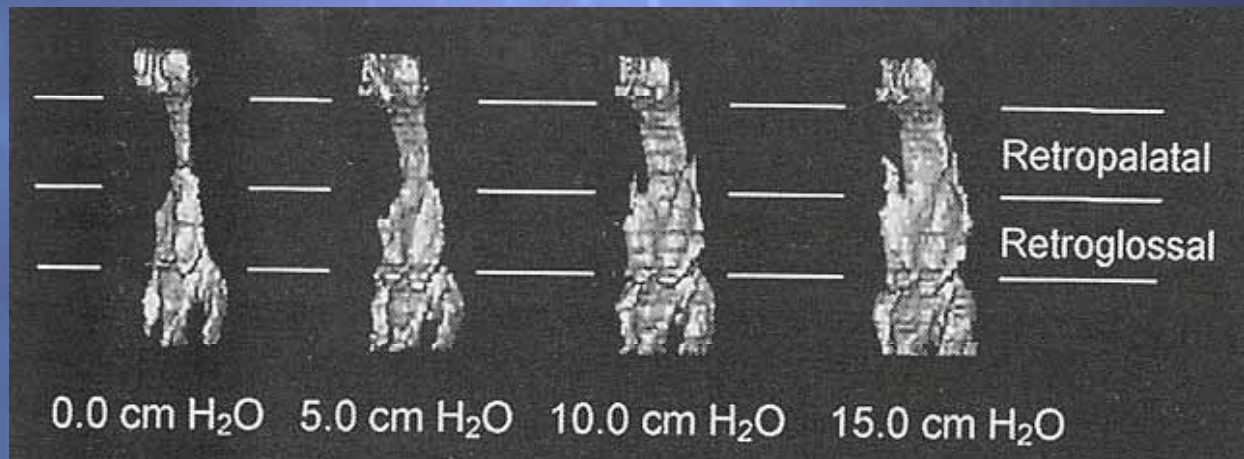




CPAP Axial MR



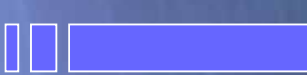
CPAP Effect on Airway



CPAP

- ✦ CPAP or BiPAP
- ✦ May be delivered nasally or by full-face mask
- ✦ May still be necessary after surgery
- ✦ Compliance an issue

CPAP

- ✦ Titrated to limit all respiratory events
- ✦ 50-90% acceptance – better if daytime symptoms improved
- ✦ Side effects in 40-50%
- ✦ Long Term Compliance ? 

| Author | Nat. | year | n. cases | % compl. |
|----------------------|---------|------|----------|----------|
| Akashiba & Coll. | Japan | 1992 | 23 | 83% |
| Reeves-Hoche & Coll. | USA | 1994 | 47 | 81% |
| Fleury & Coll. | France | 1994 | 27 | 60% |
| Ripberger & Coll. | Germany | 1994 | 50 | 92% |
| Pieters & Coll. | Belgium | 1996 | 192 | 90% |
| Pepin & Coll. | France | 1999 | 121 | 79% |
| Lacassagne & Coll. | France | 2000 | 248 | 70% |
| Schweiz & Coll. | Switzer | 2000 | 186 | 73% |
| Grote & Coll. | Sweden | 2000 | 20 | 50%* |

nCPAP: positive(+) vs negative(-) features

+ effective in all cases with most devices
safe, reversible
relatively cheap

- need for titration

variable long term compliance

risk of no or partial use, loss of efficacy

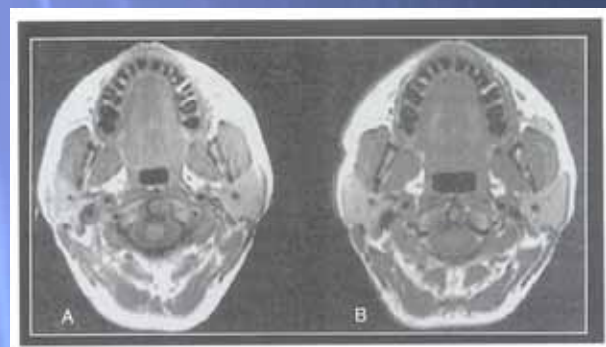
nose & eye problems

logistic problems

must be correctly used every night !

WEIGHT LOSS

✦ Diet, exercise, bariatric surgery, medications



Weight Loss



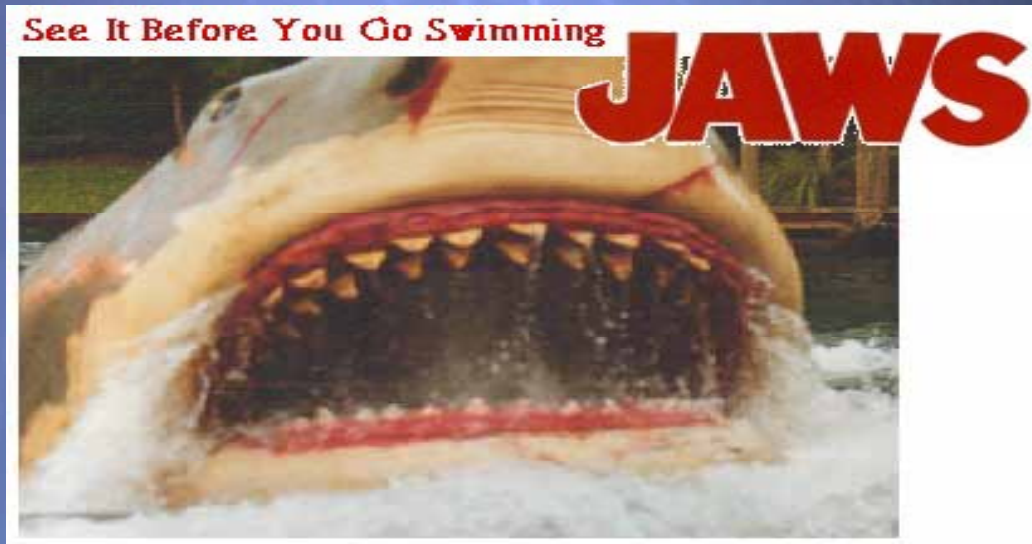
✦ Note lateral pharyngeal fat pads

PHARMACOTHERAPY

- ✦ Protriptyline – decreases REM sleep
- ✦ Xanthine based drugs
- ✦ **Modafinil******
- ✦ Steroids
- ✦ Antibiotics
- ✦ Nasal medications

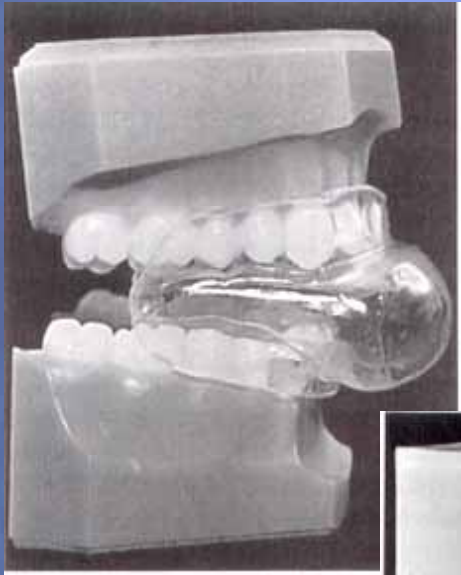
ORAL APPLIANCES

- ✦ Advances the mandible
- ✦ Retains the tongue anteriorly

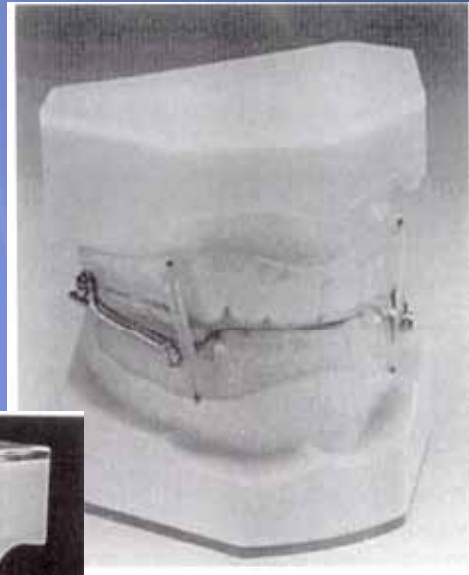


Oral appliances

- ✦ Most effective in nonobese patients with retro or micrognathia
- ✦ Better for mild to moderate cases
- ✦ 51% achieve normal sleep, 61% improved RDI < 20
- ✦ Consider TMJ dysfunction and occlusal changes



oral



appliances



Oral Dv.: positive(+) vs negative(-) features

- + effective, but in selected cases, according to the type
safe, reversible
relatively cheap
- unpredictable long term compliance
risk of no or partial use, loss of efficacy
teeth & mouth problems
must be used every night !



overview on surgical approach features



Surgery: positive(+) vs negative(-) features

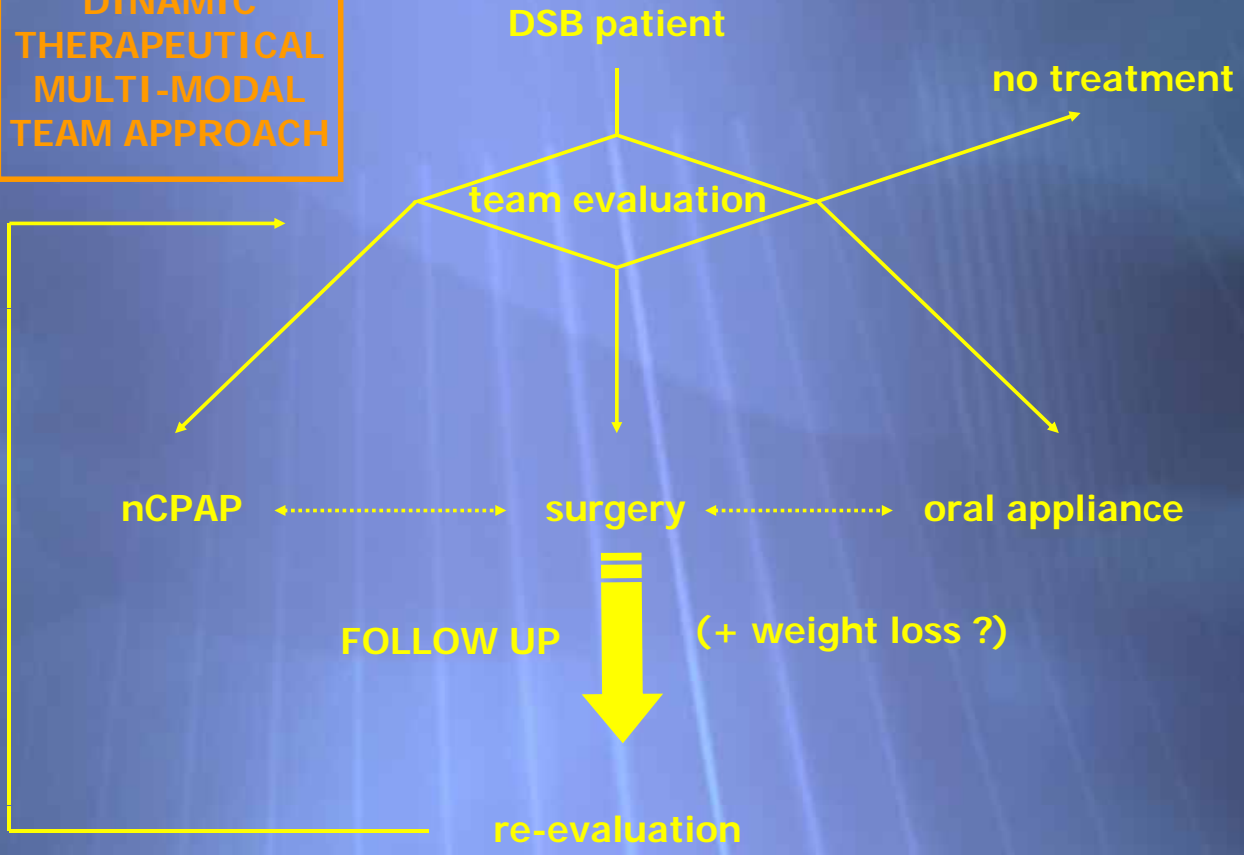
- + effective, but in selected cases, according to the procedure
no risk of no or partial use
definitive long term results !
- variable compliance and success rate
requires hospital admission of some time
requires surgical skill and experience
general & special surgical risks
pain, functional sequelae, not reversible
relatively expensive

Future perspectives:

a. improved technology

b. more individually customised
therapeutical procedures !!!

**DINAMIC
THERAPEUTICAL
MULTI-MODAL
TEAM APPROACH**



**THANK YOU FOR
YOUR ATTENTION ... and**

