

Identifying and Managing Complications of Oral Appliance Therapy

Steve Carstensen DDS
Diplomate, American Board of Dental Sleep Medicine
Fellow, American Academy of Sleep Medicine

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Disclosures

Steve
CARSTENSEN
DDS

ADA
American Dental Association

Consultant to the ADA for Sleep Related Breathing Disorders


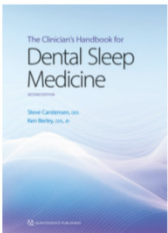
Lead Dental Sleep Medicine Educator
The Pankey Institute
World Sleep Academy

Industry Advisor
SomnoHealth
VizBriz
Airway Technologies
Sound Health

World Sleep Academy

THE PANKEY INSTITUTE

AAPMD
AMERICAN ASSOCIATION OF PHYSIOLOGICAL MEDICINE & DENTISTRY




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The Most Important Tool
For **Preventing**
Complications



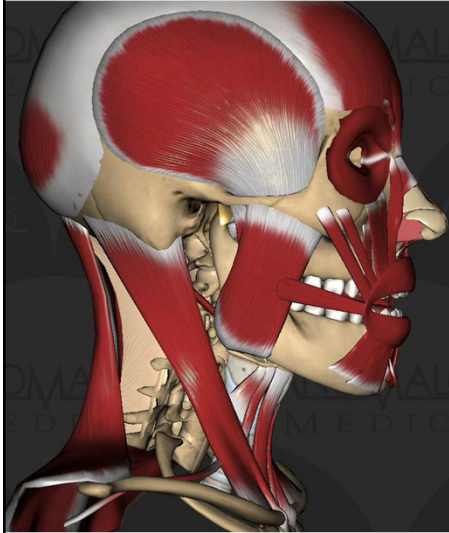
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The Most Important Tool
For **Treating**
Complications



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3 Ways OAT Can Go Wrong



Functional



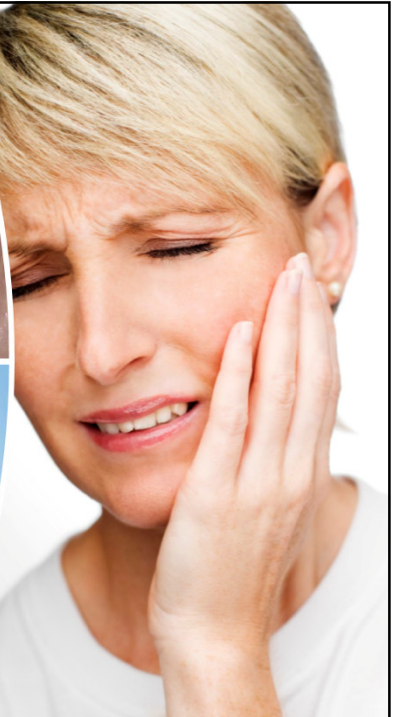
Neurological



Behavioral

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Functional Complications



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Posterior
Open Bite

AFTER PROLONGED USE
(EXAMPLES OF POSSIBLE CHANGES)

FRONT VIEW

- Upper front teeth may move outward (flaring)
- Lower front teeth may move inward (crowding)

SIDE VIEW

- Upper front teeth may tip forward
- Lower front teeth may tip backward

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What was their TMJ status before OAT?

History of

- Clicking?
- Locking?
- Treatment?

Spencer Study Club
www.JamisonSpencer.com

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Capsulitis

Like any injured joint

Antinflammatories

Softer diet

Hard Splint worn 24/7 to protect joint

Treat before MAD delivery



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Myalgia

Muscles respond to rest and anti-inflammatory

Low level laser therapy

Splint therapy to decrease muscle function - anterior bite stop

No need to postpone OAT



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**CHRONIC PAIN
DEPRESSION**



**STONE STAYS
IN SHOE**


=



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**CHRONIC PAIN
DEPRESSION**


When the sympathetic and
central nervous systems
become part of the
process everything
changes



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correcting a peripheral factor that initiated a problem does not necessarily stop the pain

**CHRONIC PAIN
DEPRESSION**



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PAIN



**There is
NO STONE**



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Increased efficiency of synaptic transmission at neurons in the dorsal horn as a result of nociceptive activity.

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FIBROMYALGIA SYNDROME

TM DYSFUNCTION **CHRONIC FATIGUE SYNDROME**

RESTLESS LEG SYNDROME **IRRITABLE BOWEL SYNDROME**

CHRONIC HEADACHE **MIGRAINE**

MYOFASCIAL PAIN DYSFUNCTION SYNDROME

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What Did They Bring With Them?



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Behavioral – Disappointed Patients

Office Experiences

Device Quality

Device Longevity

Treatment Results

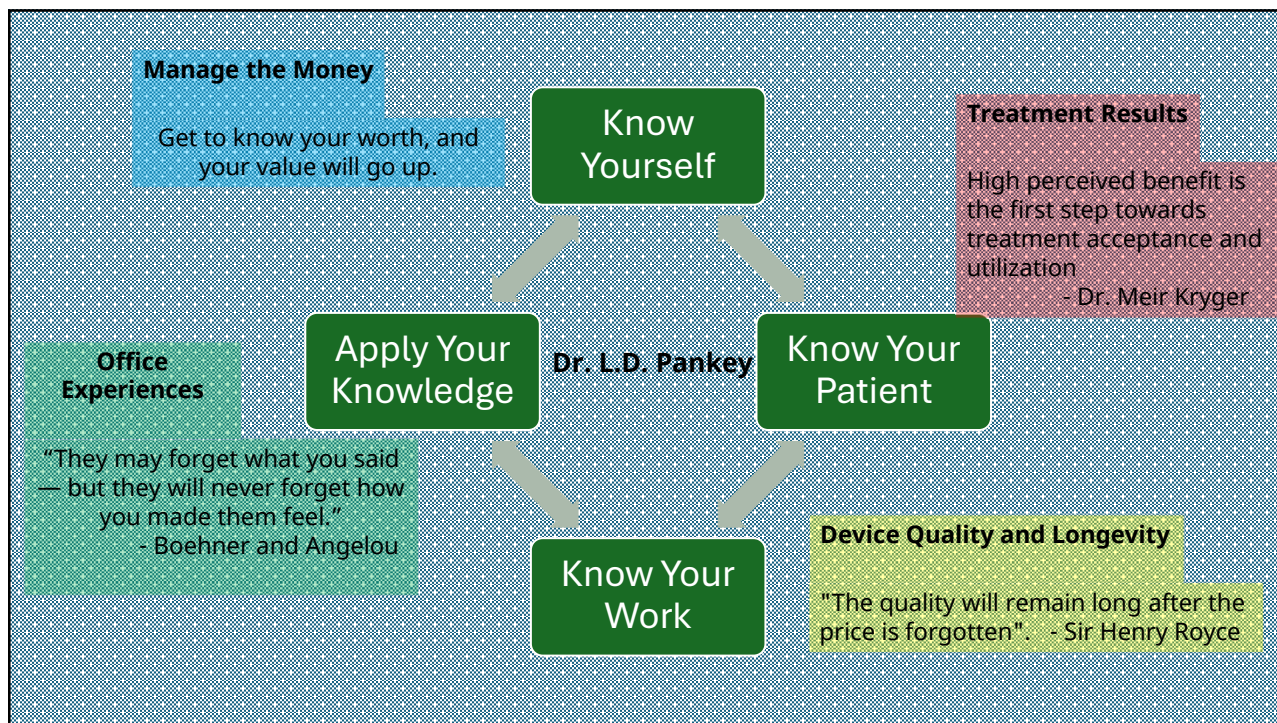
Money



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The Consequences of Obstructive Sleep Apnea

STROKE

- Sleep apnea is a risk factor for stroke.
- It is associated with a 30% increase in stroke risk.
- It is also associated with a 40% increase in stroke risk.
- It is associated with a 50% increase in stroke risk.

STRESS ON THE HEART

- Sleep apnea is a risk factor for heart disease.
- It is associated with a 20% increase in heart disease risk.
- It is associated with a 30% increase in heart disease risk.
- It is associated with a 40% increase in heart disease risk.

HYPERTENSION

- Sleep apnea is a risk factor for hypertension.
- It is associated with a 20% increase in hypertension risk.
- It is associated with a 30% increase in hypertension risk.
- It is associated with a 40% increase in hypertension risk.

CONDUCTIT

- Sleep apnea is a risk factor for conductit.
- It is associated with a 20% increase in conductit risk.
- It is associated with a 30% increase in conductit risk.
- It is associated with a 40% increase in conductit risk.

CARDIAC ARRYTHMIA

- Sleep apnea is a risk factor for cardiac arrhythmia.
- It is associated with a 20% increase in cardiac arrhythmia risk.
- It is associated with a 30% increase in cardiac arrhythmia risk.
- It is associated with a 40% increase in cardiac arrhythmia risk.

CONGESTIVE HEART FAILURE

- Sleep apnea is a risk factor for congestive heart failure.
- It is associated with a 20% increase in congestive heart failure risk.
- It is associated with a 30% increase in congestive heart failure risk.
- It is associated with a 40% increase in congestive heart failure risk.

HEART DISEASE

- Sleep apnea is a risk factor for heart disease.
- It is associated with a 20% increase in heart disease risk.
- It is associated with a 30% increase in heart disease risk.
- It is associated with a 40% increase in heart disease risk.

SUDDEN DEATH

- Sleep apnea is a risk factor for sudden death.
- It is associated with a 20% increase in sudden death risk.
- It is associated with a 30% increase in sudden death risk.
- It is associated with a 40% increase in sudden death risk.

MEDICAL COSTS

- Sleep apnea is a risk factor for medical costs.
- It is associated with a 20% increase in medical costs risk.
- It is associated with a 30% increase in medical costs risk.
- It is associated with a 40% increase in medical costs risk.

POOR SLEEP

- Sleep apnea is a risk factor for poor sleep.
- It is associated with a 20% increase in poor sleep risk.
- It is associated with a 30% increase in poor sleep risk.
- It is associated with a 40% increase in poor sleep risk.

MOOD DISTURBANCE

- Sleep apnea is a risk factor for mood disturbance.
- It is associated with a 20% increase in mood disturbance risk.
- It is associated with a 30% increase in mood disturbance risk.
- It is associated with a 40% increase in mood disturbance risk.

SLEEPY

- Sleep apnea is a risk factor for sleepiness.
- It is associated with a 20% increase in sleepiness risk.
- It is associated with a 30% increase in sleepiness risk.
- It is associated with a 40% increase in sleepiness risk.

DIETARY SLEEPINESS

- Sleep apnea is a risk factor for dietary sleepiness.
- It is associated with a 20% increase in dietary sleepiness risk.
- It is associated with a 30% increase in dietary sleepiness risk.
- It is associated with a 40% increase in dietary sleepiness risk.

SOFT SNOORING

- Sleep apnea is a risk factor for soft snoring.
- It is associated with a 20% increase in soft snoring risk.
- It is associated with a 30% increase in soft snoring risk.
- It is associated with a 40% increase in soft snoring risk.

DIABETES TYPE II

- Sleep apnea is a risk factor for diabetes type II.
- It is associated with a 20% increase in diabetes type II risk.
- It is associated with a 30% increase in diabetes type II risk.
- It is associated with a 40% increase in diabetes type II risk.

OBESITY

- Sleep apnea is a risk factor for obesity.
- It is associated with a 20% increase in obesity risk.
- It is associated with a 30% increase in obesity risk.
- It is associated with a 40% increase in obesity risk.

GASTROESOPHAGEAL REFLUX DISEASE (GERD)

- Sleep apnea is a risk factor for gastroesophageal reflux disease (GERD).
- It is associated with a 20% increase in GERD risk.
- It is associated with a 30% increase in GERD risk.
- It is associated with a 40% increase in GERD risk.

SEXUAL DYSFUNCTION

- Sleep apnea is a risk factor for sexual dysfunction.
- It is associated with a 20% increase in sexual dysfunction risk.
- It is associated with a 30% increase in sexual dysfunction risk.
- It is associated with a 40% increase in sexual dysfunction risk.

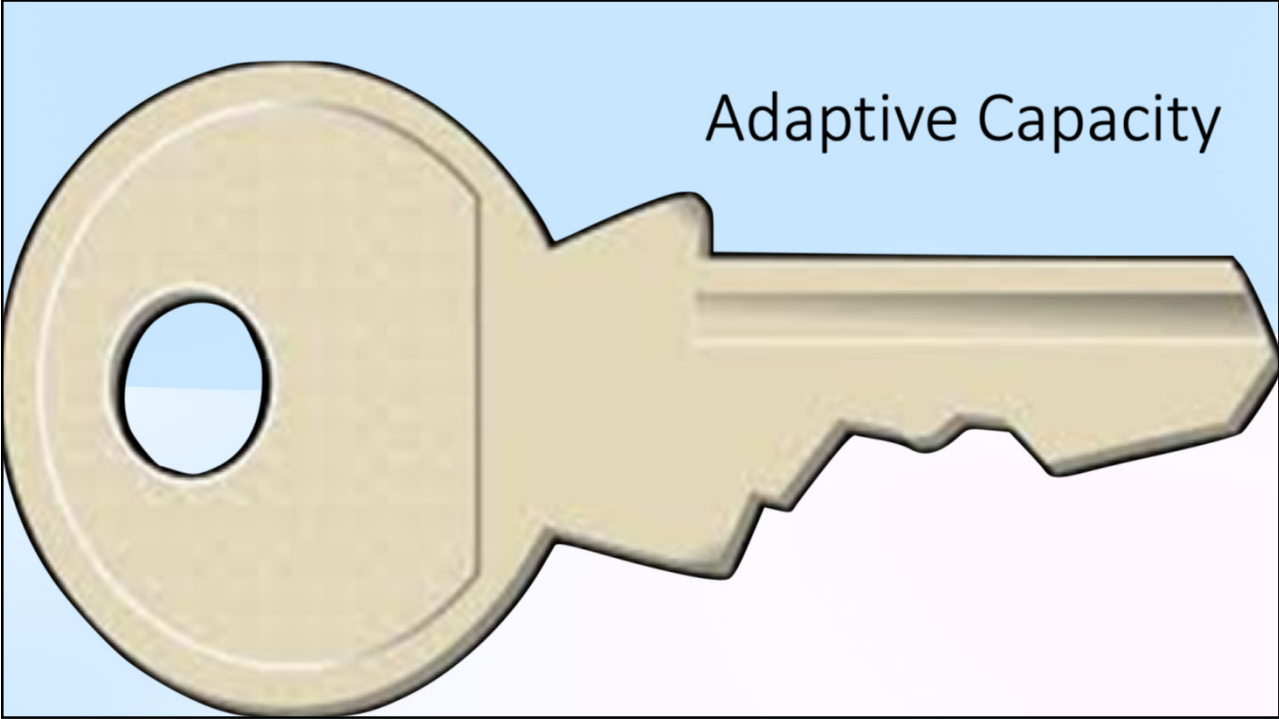
NOCTURIA

- Sleep apnea is a risk factor for nocturia.
- It is associated with a 20% increase in nocturia risk.
- It is associated with a 30% increase in nocturia risk.
- It is associated with a 40% increase in nocturia risk.

Nothing's Free

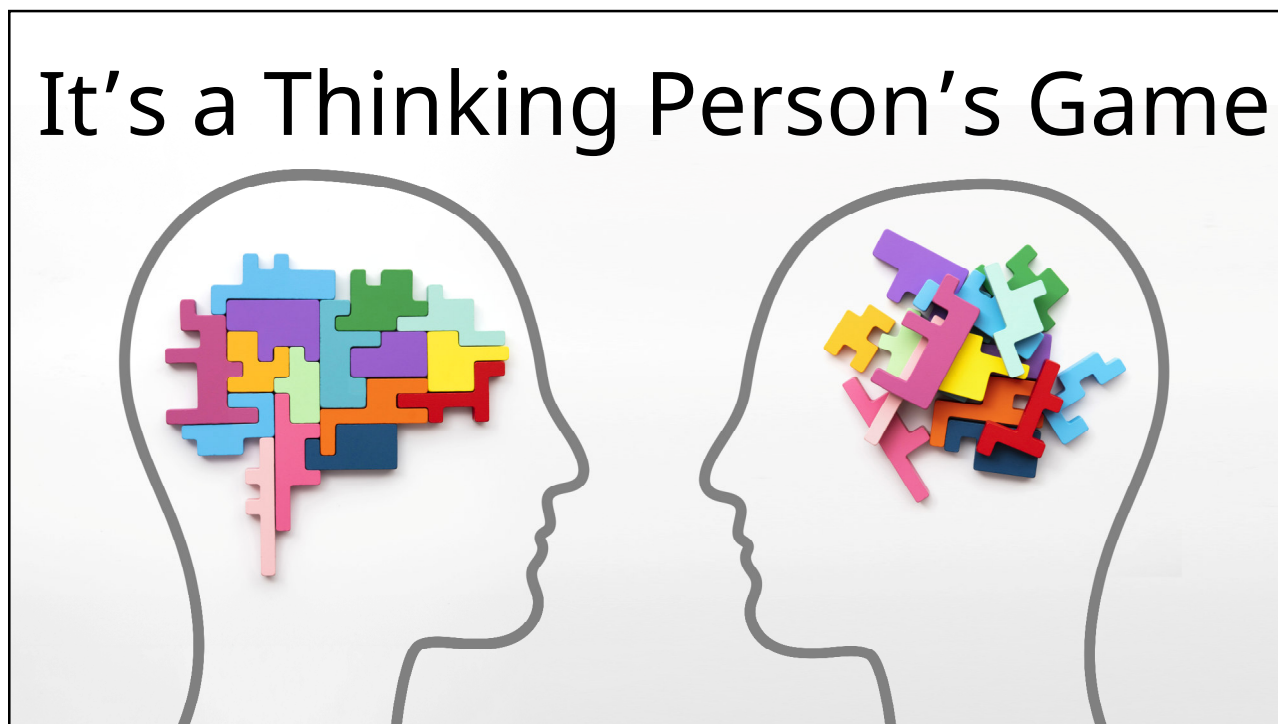


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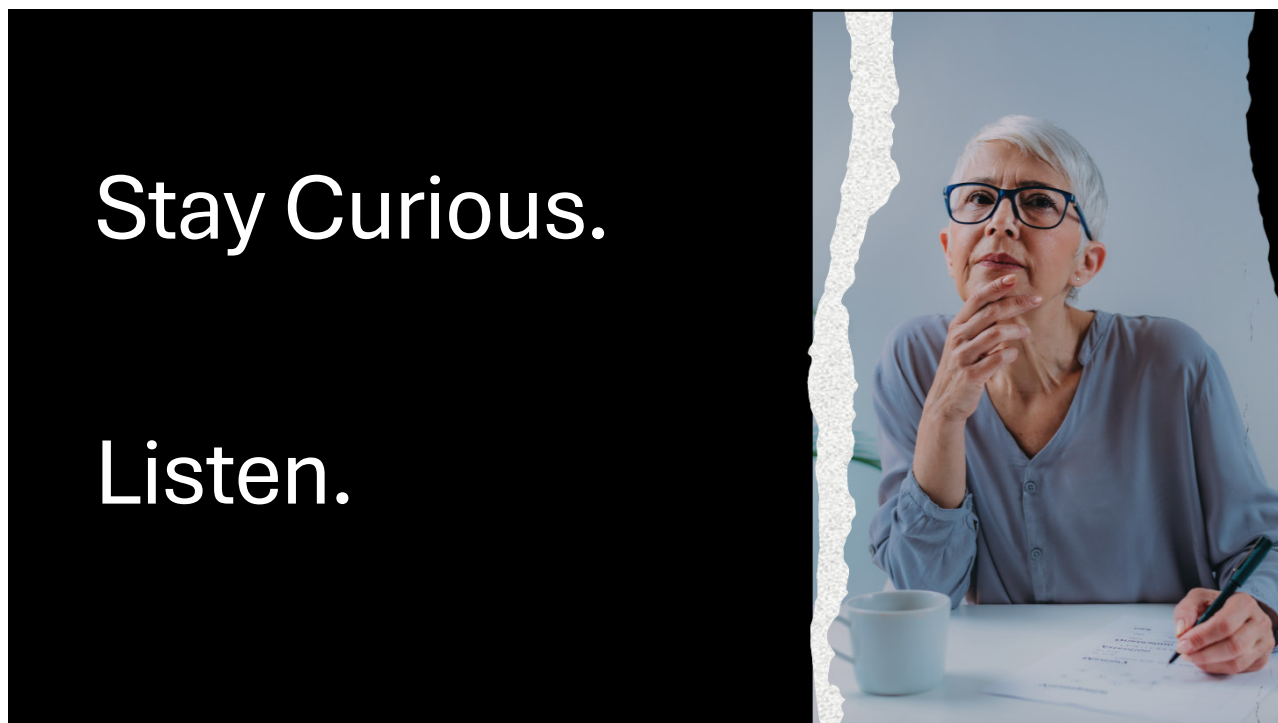


Adaptive Capacity

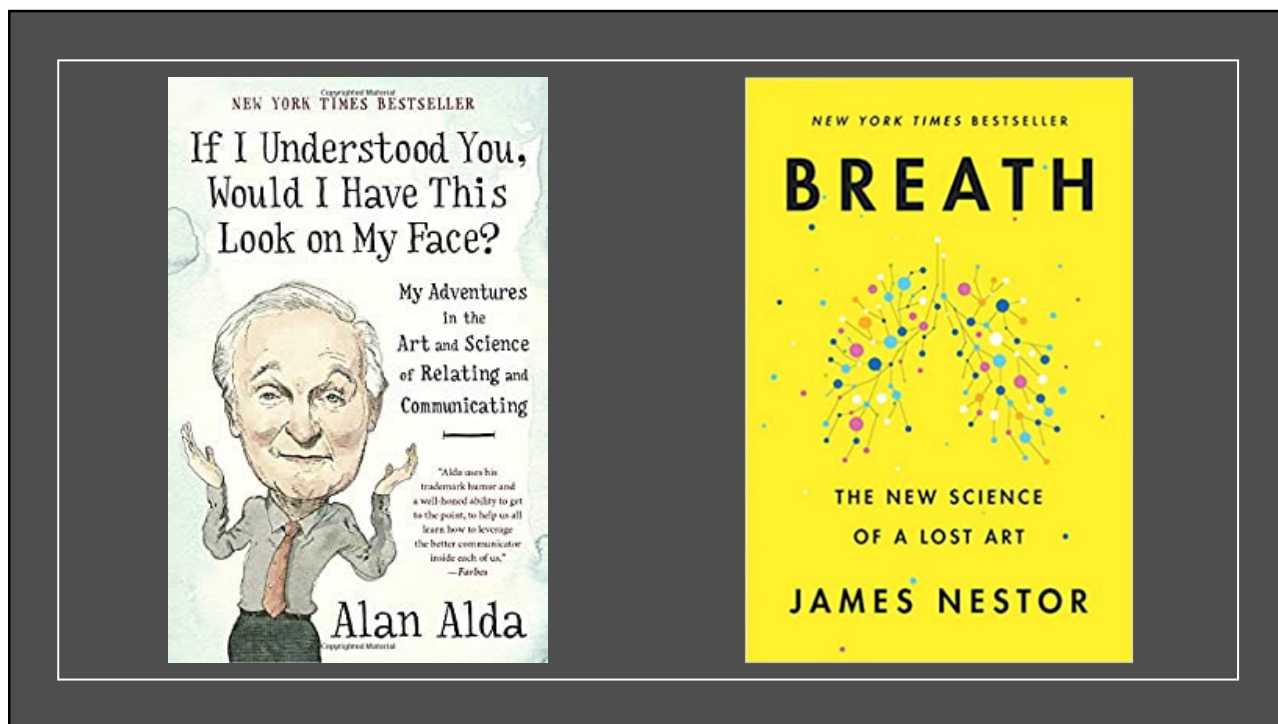
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Steve Carstensen DDS
SteveC@SteveCarstensenDDS.com
SeattleSleep.com



SS SEATTLE SLEEP
DR. STEVE CARSTENSEN

The complex block features a light blue background. On the left, contact information for Steve Carstensen DDS is listed. On the right, a pair of hands is shown holding a light blue heart-shaped stone with the words 'THANK YOU' written on it in black marker. At the bottom left, the logo for 'SS SEATTLE SLEEP DR. STEVE CARSTENSEN' is displayed.

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