Talking about sex and COPD

Theory, research, and implications for practice

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Why sex?

Because older people like sex too...

• US survey (2004) of 3000+ adults 57-85 years:
  – 75-85 years: 39% of men & 17% of women sexually active with partner in previous year.
  – 54% of sexually active 75-85 y olds, having sex 2-3 times a month

(Lindau et al., 2007)
Based on a study of 333 people with resp. failure (age: mean 63.3; SD 9.3 yrs; Germany)

• 34% sexually active (20% over 70 yrs)
• Sexually active people younger, better lung function, with partner
• 36% reported ↓ sex after going on ventilator; but 13% reported ↑ sex

(Schonhofer et al 2001)
Health and sex

• Poorer health status negatively influences sexual activity and sexual satisfaction  
  (Lindau et al 2007, Matthias et al 1997)

• Guidelines & systematic review sex exist for a number of conditions, e.g.
  – Cardiovascular disease (e.g. Steinke et al 2013)
  – Diabetes (e.g. Pontiroli et al 2013, Vardi and Nini 2007)
  – Cancer (e.g. Miles et al 2007)

... but not so much for COPD
Some assumptions

In addition to heterosexual and same-sex couples, considerations should also be given to:

• Transgender people
• People who are single
• People who are asexual/uninterested in sex
Prevalence of sexual dysfunction in people with COPD

• Erectile dysfunction:
  – 56% of age-matched controls (Kahraman et al 2013)
  – COPD an independent predictor of ED (Kahraman et al 2013)

• Also evidence of COPD assoc. with:
  – Reduced sexual desire, lower frequency of sex, inability to achieve orgasm, difficulty finding sex pleasurable. (Kaptein et al 2008, Collins et al 2012)
Reasons for sex problems: COPD

- Hormonal
- Physiological
- Psychological
- Sociological
- Pharmaceutical
Reasons for sex problems: COPD

• Hormonal
  – Men with COPD have 3.21 nmol/L (95% CI 1.23 to 5.18 nmol/L) less total testosterone than age-matched men without COPD (Atlantis et al 2013).
Reasons for sex problems: COPD

- Physiological
  - Not enough puff
  - Exercise deconditioning
  - Body position and V/Q matching

QUESTION: What degree of exercise capacity is required for sexual intercourse?
Recommendation for people at risk of MI:

• If you can tolerate 3-5 METs without cardiac symptom; sex should be safe (Steinke et al 2013).

  ... i.e. a ‘brisk’ walk (5-6.5kph). Or two flight of stairs.

Note: 1 MET = 3.5 ml O$_2$/kg/min (approx. amount of oxygen normally consumed at rest)

QUESTION:

• What is the basis for the 3-5 MET figure for sex?
Heart Rate, Rate-Pressure Product, and Oxygen Uptake During Four Sexual Activities

Joseph G. Bohlen, MD, PhD; James P. Held, BChE; M. Ofwen Sanderson, MD; Robert P. Patterson, PhD

- Heart rate, rate-pressure product, and VO₂ were measured in ten healthy men during four specified sexual activities: coitus with husband on top, coitus with wife on top, noncoital stimulation of husband by wife, and self-stimulation by husband. Foreplay generated slight, but statistically significant, increases above resting baseline in cardiac and metabolic variables. From stimulation through orgasm, average effort was modest for relatively short spans. Maximum exercise values occurred during the brief spans of orgasm, then returned quickly to near baseline levels. The two noncoital activities required lower expenditures than the two coital positions, with man-on-top coitus rating the highest. Large variations among subjects and among activities discourage use of a general equivalent activity for comparison, such as "two flights of stairs," to represent "sexual activity." (Arch Intern Med 1984;144:1745-1748)

In 1984 an estimated 1.5 million Americans will have a myocardial infarction (MI), of whom about 950,000 will survive; 4.4 million Americans alive today have a history of MI or angina pectoris.1 The impact of these figures is even greater when we consider that the effects of cardiac illness...

Several previous studies concluded that the cardiac demands of sexual activity are not as great as once believed.5,6 Consequently, the cardiac patient is no longer considered to be at high risk during sexual activity. Studies, however, have neither compared expenditures during different sexual activities (except man-on-top and man-on-bottom coitus)7,9 nor directly determined metabolic expenditure. The purpose of our study was to investigate whether any differences in cardiac and metabolic expenditure occur among four specified sexual activities. Heart rate (HR), systolic BP to calculate rate-pressure product (RPP), and oxygen uptake (VO₂) were recorded simultaneously during each sexual activity. These results then were compared with performance on a treadmill using the Bruce protocol to determine energy demand relative to individual maximal capacity. In light of the findings, sexual advice during cardiac rehabilitation is discussed.

SUBJECTS AND METHODS
Subjects
Ten married couples participated in this study as paid volunteers. Orientation of the couples included three separate visits to...
Details of Bohlen et al. 1984

- 10 health, young couples
- Values relate to the male partner only

<table>
<thead>
<tr>
<th>Activity</th>
<th>Average METS</th>
<th>95% CI</th>
</tr>
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<tbody>
<tr>
<td>Foreplay</td>
<td>1.4 METs</td>
<td>1.2-1.6 METs</td>
</tr>
<tr>
<td>Orgasm: Fem. stim. male</td>
<td>1.7 METs</td>
<td>1.3-2.1 METs</td>
</tr>
<tr>
<td>Orgasm: Male stim. Self</td>
<td>1.8 METs</td>
<td>1.5-2.1 METs</td>
</tr>
<tr>
<td>Orgasm: Fem. on top</td>
<td>2.5 METs</td>
<td>1.8-3.1 METs</td>
</tr>
<tr>
<td>Orgasm: Male on top</td>
<td>3.3 METs</td>
<td>2.6-4.1 METs</td>
</tr>
</tbody>
</table>
• 3-5 METs is a ‘safety limit’ recommendation
• Lots of pleasurable sexual activities require less energy expenditure.
• Sexual activity should be equated to:
  “a relaxed walk for a few blocks, interspaced by ascending one or two flights of stairs at moderate and, most importantly, at a very much individual pace’ (Araujo, 2009, p.1034).
Positioning and V/Q matching

- COPD
  - Subtle, idiosyncratic changes in V/Q matching
  - Inconsistent throughout lung
Positions for efficient breathing

Hough (1996)
Positioning for sex with COPD

Likely needs to be individualised, but...

**Probably bad...**

- 100% supine
- Effortful positions (holding weight on upper limbs)
- Weight on chest
- Covering mouth
Positioning for sex with COPD

Likely needs to be individualised, but...

Probably good...

• Pillows for support
• Chest clearance & inhalers beforehand
• Relaxation
• Upper right chest positions
• Supplemental oxygen
• ‘Toys’ to reduce effort
Position for sex

1a) Side lying
1b) Recline lying
1c) Standing
1d) Seated

(Levack, 2014)
Other factors

- Psychological factors
- Sociological factors
- Pharmaceutical factors
PLISSIT Model

P: Permission
LI: Limited information
SS: Specific suggestions
IT: Intensive therapy
Conclusion

• A pleasurable, satisfying sex life is important for many people regardless of age or severity of COPD
• Sexuality can be affected by many factors
• Health professionals can have a role in the management of problems with sexual function in COPD.
• Read up on it, discuss in clinical supervision, and be confident that it is important! 😊