Can sexual dysfunction be prevented?

YES
Conflict of Interest

• For the last two years, I have been
  – Investigator for: Astellas, Astra, Cubist, Lilly, Medivation
  – Speaker for: Bayer, EMS, Eurofarma, Lilly
  – Consultant for: Besins, Lilly
XIII CONGRESSO DA SOCIEDADE LATINOAMERICANA DE MEDICINA SEXUAL

XIII CONGRESS OF THE LATIN AMERICAN SOCIETY FOR SEXUAL MEDICINE

MONTEVIDEO, URUGUAY
RADISSON MONTEVIDEO VICTORIA PLAZA HOTEL
13 AL 16 DE AGOSTO 2015
www.slams2015.org | info@slamsnet.org
Prevention

• Identify the risks!

• Implement actions to reduce the risks!

• Educate public and doctors!
Risk factors for ED
Disfunción Eréctil em el Norte de Sudamérica
DENSA Study

<table>
<thead>
<tr>
<th>Risk Factor</th>
<th>O.R.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Age: 60 to 69</td>
<td>3x</td>
</tr>
<tr>
<td>&gt; 70</td>
<td>6x</td>
</tr>
<tr>
<td>&lt; 5 years of education</td>
<td>2x</td>
</tr>
<tr>
<td>LUTS</td>
<td>1,5x</td>
</tr>
<tr>
<td>Hypertension</td>
<td>2x</td>
</tr>
<tr>
<td>Diabetes</td>
<td>4x</td>
</tr>
<tr>
<td>Depression</td>
<td>2x</td>
</tr>
<tr>
<td>Unemployment</td>
<td>2x</td>
</tr>
</tbody>
</table>

## ED Risk Factors on a multicentric survey in Brazil

<table>
<thead>
<tr>
<th>Risk Factor</th>
<th>O.R. (I.C&gt; 95%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>40 - 49 y.o.</td>
<td>1,7</td>
</tr>
<tr>
<td>50 - 59 y.o.</td>
<td>2,55</td>
</tr>
<tr>
<td>&gt; 60 y.o.</td>
<td>5,95</td>
</tr>
<tr>
<td>University level</td>
<td>1</td>
</tr>
<tr>
<td>High School</td>
<td>2,08</td>
</tr>
<tr>
<td>Primary School</td>
<td>3,65</td>
</tr>
<tr>
<td>Diabetes</td>
<td>2,18</td>
</tr>
<tr>
<td>Hypertension</td>
<td>2,3</td>
</tr>
<tr>
<td>Depression</td>
<td>1,87</td>
</tr>
</tbody>
</table>

Moreira E et al - Urology2001
## Co-morbidities and ED

<table>
<thead>
<tr>
<th>Condition</th>
<th>ED (n=853)</th>
<th>No-ED (n=3581)</th>
<th>OR</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pelvic surgery</td>
<td>18.8%</td>
<td>2.4%</td>
<td>6.03**</td>
</tr>
<tr>
<td>Diabetes</td>
<td>20.2%</td>
<td>3.2%</td>
<td>3.95**</td>
</tr>
<tr>
<td>LUTS</td>
<td>72.2%</td>
<td>37.7%</td>
<td>2.11**</td>
</tr>
<tr>
<td>Hypertension</td>
<td></td>
<td></td>
<td>1.58**</td>
</tr>
</tbody>
</table>

*Cologne Male Survey “ Braun M et al, J of Impotence Res 2001; 12: 305-311*
O Ministério da Saúde avisa:

FUMAR CAUSA
INFARTO DO CORAÇÃO

FUMAR NA GRAVIDEZ
PREJUDICA O BEBÊ

NÃO EXISTEM NÍVEIS SEGUROS
PARA O CONSUMO DESTAS SUBSTÂNCIAS.

FUMAR CAUSA
IMPOTÊNCIA SEXUAL.

O Ministério da Saúde avisa:

Desligue para o Fumar
0800 703 7033
Is there a relationship between smoking and ED?

- Population-based cross-sectional study of 1,580 men
- Postal questionnaire and IIEF-5

- Compared with never smokers, the odds of ED, adjusted for age, square of age, and CVD, were significantly higher among current smokers (odds ratio [OR] = 1.40; 95% [CI] 1.02, 1.92) and ever smokers (OR = 1.57; 95% CI 1.02, 2.42)

- Compared with never smokers without CVD, the age-adjusted odds of ED among former smokers and ever smokers without CVD were about 1.6

Association of Quantity and Duration of Smoking with Erectile Dysfunction: A Dose–Response Meta-Analysis

- Potential association between quantity and duration of smoking and the risk of ED.
- Literature search through March 2014 for observational epidemiological studies examining the association between smoking and risk of ED.

Obesity and ED

- MMAS longitudinal
- 593 men / no ED / no prostate cancer / no diabetes or CVD/
- Rechecked after 9 years
- **Obesity was a main risk factor for ED. Initial weight was a strong predictor**

*Derby CA et al
Urology 2000; 56:302-6.*
Do we know how to reduce the risks?
Do cigarette smokers with erectile dysfunction benefit from stopping?: a prospective study

- Evaluated prospectively patients who requested nicotine replacement therapy and complained of ED with no risk factors such as hypertension, dyslipidaemia, diabetes, psychiatric disorders and drug history.
- 118 patients stopped (ex-smokers) and 163 continued smoking (current smokers).
- Severity of ED correlated significantly with the level of exposure to smoking.
- Age and ED status before the follow-up were not significantly different between ex-smokers and current smokers.
- After 1 year, ED status improved in ≥25% of ex-smokers but in none of the current smokers.

Physical activities and ED

Physical activity, basal: YES YES NO NO
Physical activity, f-up: YES NO YES NO

Probability of ED

p=0.013

0.31

Derby CA et al
Obesity, Physical Activity and ED

- Randomized study, 110 men, IMC > 30
- 36 – 55 yo, no diabetes, hypertension or dislipidemy with ED (IIEF < 21)
- Grupo 1 – 55 men: strong oriented to loose 10% IMC (diet and exercises)
- Grupo 2 – 55 men: oriented of the benefits of loosing weight with exercises and diet

Esposito et al

*JAMA.* 2004; 291:2978-84.
Obesity, Physical Activity and ED

Esposito et al
JAMA. 2004; 291:2978-84.

IMC

Physical activity (min/wk)

IIEF

Esposito et al
JAMA. 2004; 291:2978-84.
Protective effect of prior physical conditioning on relaxing response of corpus cavernosum

- Wistar rats
- 4 groups:
  - Sedentary control
  - Exercise training
  - Sedentary hypertensive
  - Trained hypertensive
- Hypertension was induced with L-NAME
- Exercise program: 8 wks in a treadmill, 5 days/wk, each session 60 minutes

Protective effect of prior physical conditioning on relaxing response of corpus cavernosum

- Effect of electrical field stimulation on the relaxation of CC smooth muscle

- EFS (increase in the maximal response) - %
  - Sedentary control: 47 +/-3
  - Exercise training: 52 +/-1
  - Sedentary hypertensive: 42 +/-1
  - Trained hypertensive: 53 +/-3

Claudino MA, Priviero FB, Camargo EA, Teixeira CE, De Nucci G, Antunes E, Zanesco A

Int J Impot Res. 2007;19:189-95
Exercise and ED

- Male Sprague-Dawley rats were fed a Western diet (WD) or a control diet (CD) for 12 wk.
- Subgroups within each diet remained sedentary (Sed) or participated in aerobic interval treadmill running throughout the dietary intervention.
- Erectile function was evaluated under anesthesia by measuring the mean arterial pressure and intracavernosal pressure in response to electrical field stimulation of the cavernosal nerve.

Mediterranean diet improves erectile function in subjects with the metabolic syndrome

- 65 men with Metabolic Syndrom and ED
- Mediterranean Diet (MeD): fruits, vegetables, grains, olive oil
- 35 MeD and 30 control
- After 2 years:
  - Improvement of endotelial function and inflammatory tests
  - Improvement of erectile function (IIEF-5 > 22):
    - 13 MeD and 2 group control

Esposito K et al - Int J Impot Res. 2006;18:405-10
Erectile Dysfunction and Fruit/Vegetable Consumption Among Diabetic Canadian Men

The rate of ED decreases by 10% with each increase of 1 serving of fruit/vegetable per day

The effect of statins on erectile dysfunction: meta-analysis of randomized trials

- The effect of statin therapy on ED (IIEF).
- Random-effects meta-analysis of studies identified by a systematic search of MEDLINE, Web of Knowledge, the Cochrane Database, and ClinicalTrials.gov.
- 186 retrieved citations resulted in the selection of 11 randomized trials.

**RESULTS:**
- IIEF increased by 3.4 points (95% CI 1.7-5.0, \( P = 0.0001 \)) with statins compared to control.
- The average age of participants and the degree of LDL cholesterol lowering did not alter the effect on IIEF.

Rebuttal
Regular intercourse protects against ED

- Population-based 5-year follow-up study
- IIEF - 5
- 989 men aged 55 to 75 years (mean 59.2 years)
- Overall incidence of moderate or complete ED was 32 cases per 1000 person-years
  - < 1 intercourse/wk: 79 cases per 1000 person-years
  - 1 intercourse/wk: 32 cases per 1000 person-years
  - > 3 intercourses/wk: 16 cases per 1000 person-years

Sedentary life can be harmful!

- Ju has worked out for 2 years
- Her husband has not
- Ju runs 20 min every day
- Her husband does not
- Ju makes love 3 times/wk
- Her husband does not
How you can prevent ED

• Do not get prostate cancer
• Do not have any cardiovascular disease or neuropathy
• Do not be submitted to any pelvic surgery or radiotherapy
  • Do not have diabetes, but if you have control it well
    • Take statins
• Do not have hypertension, but if you have it take alpha-blockers
How you can prevent ED

• Educate yourself
  • Do not smoke
  • Drink moderately
  • Have erections regularly
• Do no be stressed or depressed
  • Do exercises
• Have an active sexual partner
  • Stay young
We'll try everything to prevent this from happening!

Out of Order!