



# THE INVOLUNTARY LOSS OF URINE IN WOMEN WITH URGE SYMPTOMS IS HIGHLY DEPENDING ON THE UPRIGHT BODY POSITION #337

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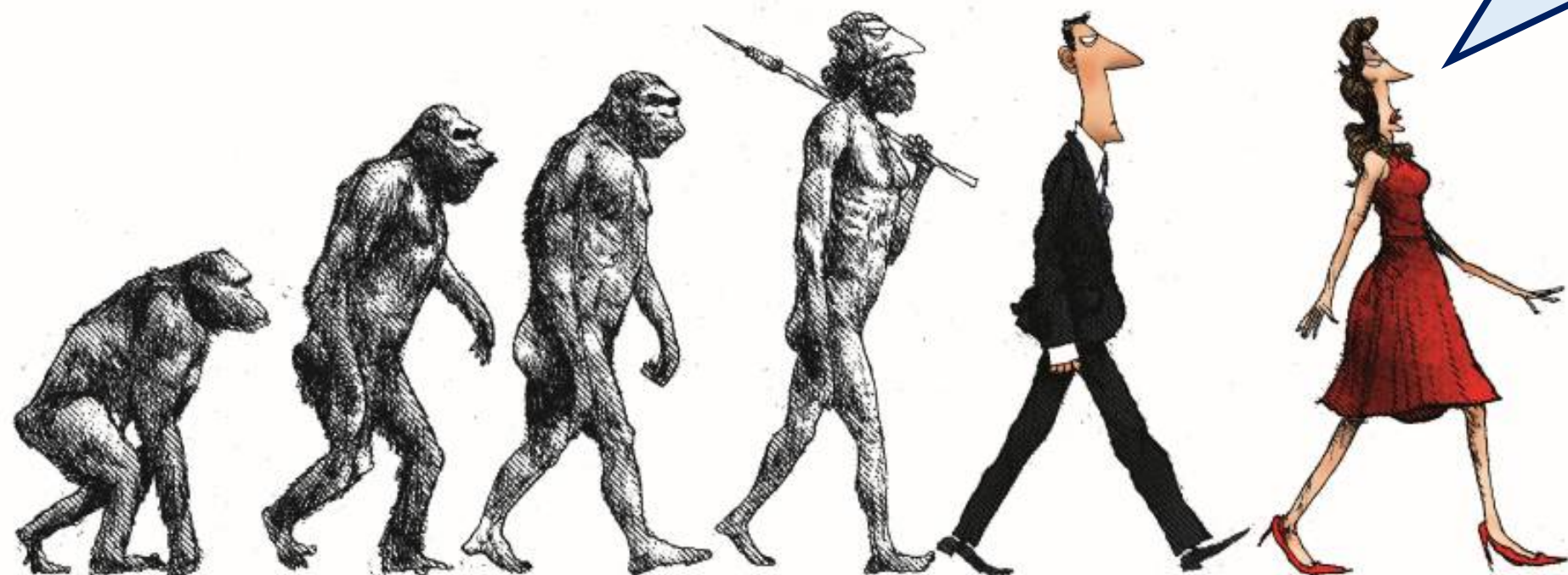
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What if human evolution with it's upright body position is the reason for all incontinence problems?

Let's rethink!

Today's status quo:

- urgency urinary incontinence (UUI) is considered to be caused by uninhibited contractions of the detrusor muscle
- stress urinary incontinence (SUI) is caused by an increase of the intra-abdominal vertical pressure leading to an opening of the urethra



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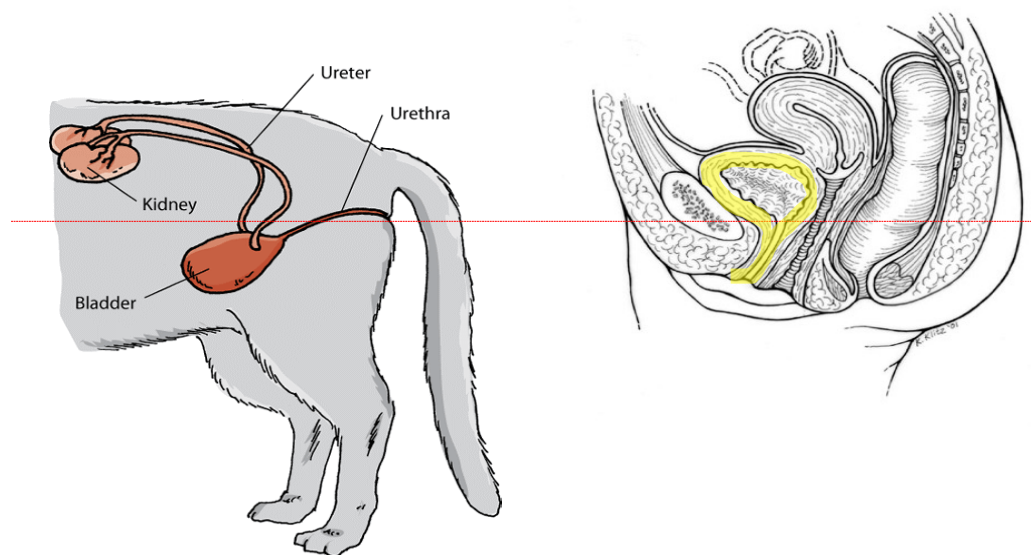
## Study design

- 466 female patients
- our selection criterion: involuntary loss of urine in less than 10 minutes after the first urge
- self-observation period of 4 months
- standardized check-list about their daily routine and loss of urine situations
- main classification in 2 groups:
  - loss of urine in a horizontal body position (sleeping/resting)
  - loss of urine in an upright position (walking/sitting)
- effect of extra abdominal pressure in the upright position: getting up

## Hypothesis

UUI may – just like SUI - be caused by the upright body position in a way that anatomic changes are leading to the urge sensation and involuntary loss of urine.

effect of the upright body position on the urethra-vesical junction  
- dogs (horizontal) and humans (upright) -



## Results

**12% incontinence in the horizontal position**

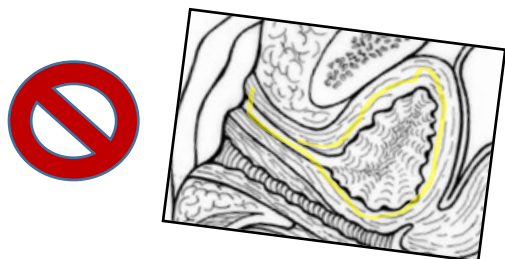
**88% incontinence in the upright position**

nighttime  
10pm-7am

miction  
frequency  
2x



**sleeping 12%**

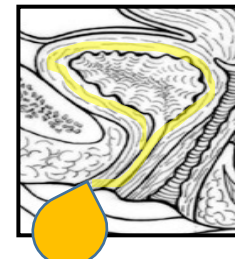


daytime  
7am-10pm

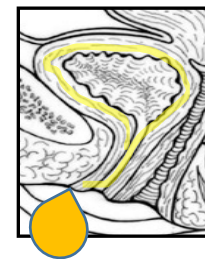
miction  
frequency  
10-15x



**getting up 28%**



**walking 60%**



- average patient: 61 years, 72kg, 165cm, 2 vaginal deliveries
- 88% with UUI had loss of urine in the upright body position
- just 12% of women with UUI had symptoms and urine loss at sleeping/resting
- 58% stated a loss of urine under 3 minutes after the first urge, 42% in between 3-10 minutes after the first urge
- extra abdominal pressure in the upright position was leading to urge and loss of urine in 28%
- significant difference of the miction frequency: 2 times during nighttime and 10-15 times during daytime

## Conclusion

If it were so  
- would you  
treat me  
different?

Tomorrows' status quo (?):

We hypothesize that urge urinary incontinence and stress urinary incontinence are expressions of the same pathophysiological continuum, namely the premature opening of the urethra-vesical junction in the upright body position - caused by pressure and prolapse. Therefore surgical therapy should be considered as a standard therapeutic option in women with UUI.

