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# Knee Osteoarthritis People are **Less Active** than the General Population: an epidemiological study.

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## Context :

OARSI\*, ESCEO\* recommend to associate Pharmacological (PI) and Non-Pharmacological Intervention (NPI) for knee osteoarthritis patient.

These NPI therapies combine exercise programs, self-management, education and weight loss if necessary.

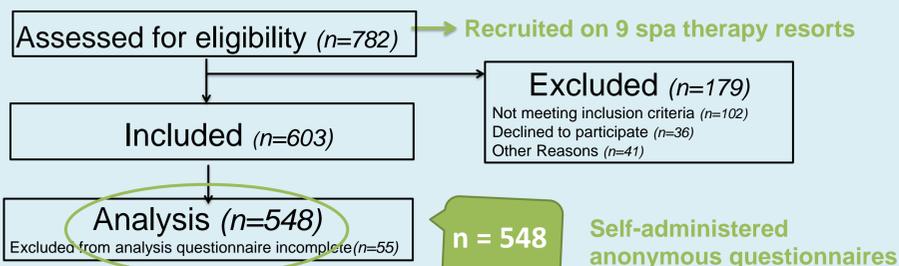
Exercise programs include specific exercises (strenght training, aerobic activity, adjunctive range of motion and stretching exercises) and **increasing physical activity level**

## Objectives :

**Describe the level and factors affecting the Physical Activity (PA) practices of knee osteoarthritis (OA) patients.**



## Methods :



Eligibility	Non eligibility
✓ Declarative diagnostic* of Knee OA	✗ Two prosthetics knee replacements
✓ Verbal consent to participate	✗ Behavioral and comprehension disorders

\*yes" response at this two questions: "Has a doctor already established a diagnosis of knee OA?" and "Have you experienced in the past chronic knee joint symptoms for 3 months or more?".

**Determine Physical Activity Level** → **IPAQ (short form)**

**Explore relationship between PA Level and :**

- Sociodemographic data
- Clinical data
- Anthropometric data
- Comorbidities
- Fears and believes
- Barriers and facilitators to PA

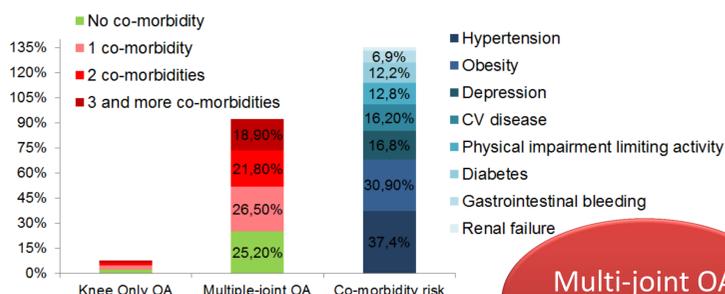
→ **PAIN VAS WOMAC EPAP KOFBeQ**

## Results :

### Population

Age : 67, 5 (±7,9)  
Women : 73,9 %  
BMI : 28,2 (±5,7)  
>30 : 30,9 %

### Phenotypes and comorbidities



**Multi-joint OA Comorbidities**

### Significant differences between participants with or without comorbidity

Characteristic	No comorbidities (n=150)	At least one comorbidity (n=398)
<b>Body mass index (Kg/m<sup>2</sup>)</b>	<b>24.9</b> (±2.9)	<b>29.4</b> (±5.9)
<b>Pain (0/10)</b>		
Last 24 hours	<b>4.1</b> (±2.3)	<b>4.7</b> (±2.6)
Last month	<b>5.9</b> (±2.3)	<b>6.7</b> (±2.5)
<b>Treatment for pain due to OA</b>		
Yes	76 <b>54.3%</b>	273 <b>71.8%</b>
No	64 <b>45.7%</b>	107 <b>28.2%</b>
If treatment, frequency		
<b>KOFBeQ total score (0/99)</b>	<b>37.0</b> (±21.9)	<b>44.9</b> (±23.1)
Daily living activity score	<b>7.2</b> (±7.3)	<b>10.0</b> (±8.2)
Physician score	<b>16.2</b> (±10.7)	<b>18.6</b> (±10.8)
Disease score	<b>6.1</b> (±5.9)	<b>7.5</b> (±6.0)
Sports and leisure activity score	<b>7.5</b> (±6.0)	<b>9.1</b> (±6.3)
<b>WOMAC function score (0/100)</b>	<b>32.4</b> (±18.6)	<b>38.3</b> (±21.3)



### Physical Activity Level and is associated factors



#### Physical Activity Level by Categorical score



**Total PA = 2628 MET/min/week**

#### Odds-ratios associated to probability of being in low PA Level (p-value <0,05)

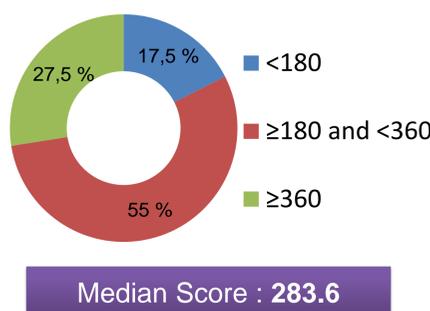
Characteristic	OR (95% CI)
<b>Gender (Men/women)</b>	1/1.85 (1.27 - 2.69)
<b>Body mass index (Kg/m<sup>2</sup>)</b>	1.04 (1.01 - 1.08)
<b>Living area (Rural/urban)</b>	1/1.51 (1.02 - 2.24)

#### Practice's facilitators and barriers of regular PA

*I am in high spirits when I do PA \*\**  
*I am not motivated to PA practice\*\**  
*Today, I am very uncertain that I can practice PA \*\**  
*I am too tired to practice PA \*\**

\*\* Patients' responses have been encoded from 0 (totally disagree) to 4 (totally agree).

#### Time spent sitting time (min/week) and Factors significantly associated to (p-value <0,05)



#### Factors associated to spent more sitting time

Factor	OR (95% CI)
<b>Gender (M vs W)</b>	<b>300</b> [210 - 360,8]
<b>Obesity (Y vs N)</b>	<b>257,1</b> [197,1 - 361,5]
<b>Walking device (Y vs N)</b>	<b>270</b> [197,1 - 420]
<b>Cardiovascular disease (Y vs N)</b>	<b>300</b> [197,1 - 390]

#### Facilitators and barriers to reduce sitting time

*Meet other people \*\**  
*Living proximity to sports facility \*\**  
*Lake of Motivation \*\**  
*Deteriorating OA \*\**

\*\* Patients' responses have been encoded from 0 (totally disagree) to 4 (totally agree).

## Conclusion :

The OA study population was less active : 2628 MET/min/week vs 3826 MET/min/week (EUPASS) and more sedentary : 283,6 min/week vs 126,01 min/week (Jacobi and al.)

This study could help in better adaptation of health care measures, while taking into account patients overall status, including symptoms of OA pathology and comorbidities, providing tailored educational strategies with respect to physical activity.

**Conflict of Interest : NONE**

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