

# THE IMPORTANCE OF THE WAIST/HIP CIRCUMFERENCE RATIO AND PHYSICAL ACTIVITY ON THE OUTCOME OF INTRACYTOPLASMIC SPERM INJECTION CYCLES

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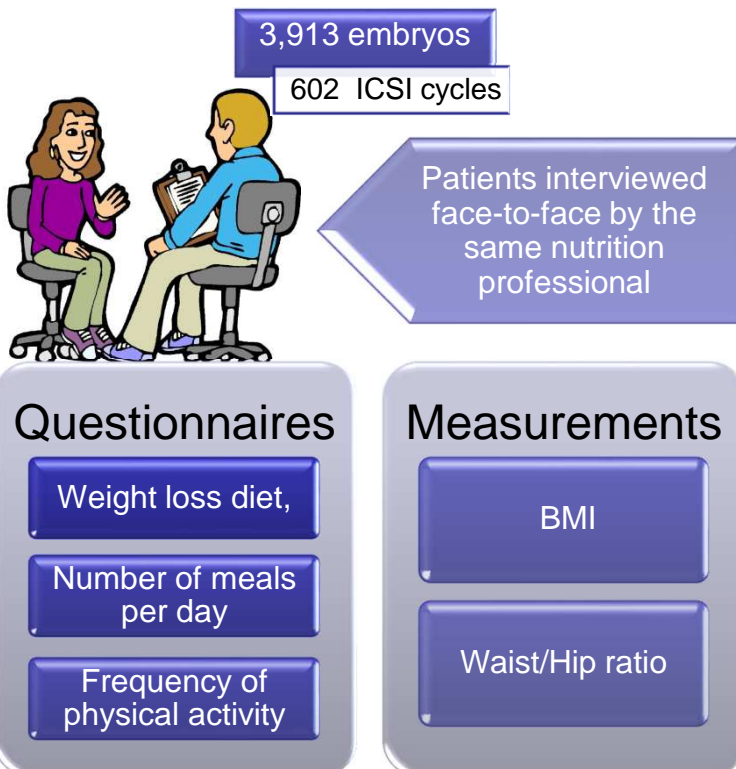
HALPERN G.<sup>1</sup>, BRAGA D.P.A.F.<sup>1,2</sup>,  
SETTI A.S.<sup>1,2</sup>, ONO E.<sup>2</sup>, FIGUEIRA R.C.S.<sup>1</sup>, IACONELLI JR. A.<sup>1</sup>, BORGES JR. E.<sup>1,2</sup>

<sup>1</sup>Fertility Medical Group; <sup>2</sup>Instituto Sapientiae – Centro de Educação e Pesquisa em Reprodução Assistida

## INTRODUCTION

The human fertility rate has declined over time. It has been suggested that this decline is associated with many external agents such as environmental factors, as well as lifestyle. Obesity, particularly abdominal obesity, may impair fertility. A parallel decline in the level of physical activity also exists; however, the evidence of its impact on assisted reproduction outcomes is still weak. Therefore the goal for the present study was to evaluate the influence of body mass index (BMI), waist/hip circumference ratio, physical activity and dietary practice on the outcomes of intracytoplasmic sperm injection (ICSI)

## MATERIALS AND METHODS



## RESULTS

	Waist/hip circumference
Fertilisation rate	RC= -0.253, R <sup>2</sup> = 1.5%, p= 0.015
Embryo quality (D2)	OR= 0.82, CI= 0.67-0.93
Embryo quality (D3)	OR= 0.79, CI= 0.61-0.89

	Physical activity
Blastocyst formation	OR= 2.77, CI= 1.5-3.4
Pregnancy	OR= 1.43, CI= 1.22-1.69
Take home baby	OR= 1.09, CI= 1.01-2.4

## CONCLUSION

The female waist/hip ratio and both male and female partner physical activity influence the ICSI outcome. No association was observed concerning BMI and dietary practices.

Our findings suggest that a lower waist/hip circumference ratio and physical activity have a protective effect on male and female fertility.

Awareness about these factors and counseling on how to minimize its impact in each partner could increase the chances of a more favorable rate of conception and live birth.