remain poor. Reasons for this disparity remain unclear. This study attempts to identify predictors associated with FPC referral.

DESIGN: Retrospective, cohort study.

MATERIALS AND METHODS: All women age 18-42 diagnosed with a new breast, gynecologic, hematologic or GI cancer at our institution between January 2008 and May 2010 were included. Demographic, socioeconomic and cancer variables were evaluated with respect to FPC. Exclusion criteria: history of permanent sterilization, documentation of no desire for future children, stage IV disease, short interval (<4 days) between diagnosis and treatment, and treatment that posed no threat to fertility. Logistic regression was used to determine the odds of referral for FPC based on specified predictors.

RESULTS: Of 353 women with a new cancer diagnosis, 199 were eligible for FPC and of those, 41 received FPC (20.6%). Women with breast cancer were over nine times more likely to receive FPC compared to other cancer diagnoses. The odds of FPC referral were approximately three times higher for Caucasian women, three times higher for age < 35 years, and five times higher in nulliparous women. There was no association between BMI, income, distance to our institution, being in a relationship and referral for FPC.

	Eligible for FPC (n = 199)			
	FPC (n = 41)	No FPC (n = 158)	Odds Ratio	95% CI
Age <35 yrs	27 (66%)	70 (44%)	3.3	1.4-7.9
Caucasian	30 (73%)	84 (53%)	2.7	1.0-7.2
BMI >30	12 (29%)	64 (41%)	1.2	0.8-1.7
Nulliparous	27 (66%)	61 (39%)	4.8	1.9-12.0
Breast Cancer	25 (61%)	45 (28%)	9.7	3.6-26.1

CONCLUSION: There appear to be significant demographic discrepancies in referral practices for FPC, including race, age, and nulliparity. At our institution, close collaboration between breast oncologists and FP providers results in higher FPC referral rates. This may highlight a need for further provider education and awareness in other oncologic disciplines.

MALE FACTOR: ART

O-239 Wednesday, October 19, 2011 11:15 AM

SPERM DNA FRAGMENTATION TEST PREDICTS ASSISTED REPRODUCTIVE OUTCOMES BETTER THAN MSOME. M. Brassesco, R. Lafuente, G. López, M. A. Checa, R. Carreras. Medical Department, CIRH, Barcelona, Spain; Department of Obstetrics and Gynecology, Hospital Universitari del Mar, Barcelona, Spain.

OBJECTIVE: Sperm DNA fragmentation and MSOME (motile sperm organelle morphology examination) are presumed to be good predictors of In Vitro Fertilization (IVF) outcomes. It has been proved by different authors the negative effect of DNA fragmentation and sperm vacuolization on embryo quality and developmental rate of embryos.

In this study we try to correlate these two diagnostic tools with pregnancy rate in order to determine their predictive value in ART.

DESIGN: Comparison of the results from 150 couples undergoing sperm DNA fragmentation and high magnification tests previous to an IVF treatment.

MATERIALS AND METHODS: 150 infertile couples undergoing an initial IVF treatment, were included.

Male patients underwent a spermiogram according to WHO criteria, a morphological sperm assessment using a high magnification inverted microscope Leica AM6000, and a sperm DNA fragmentation test by SCD technique using Halosperm kit.

Positive pregancy was considered when the gestational sac was observed. We evaluated the relationship between pregnancy rate and sperm abnormalities regarding DNA fragmentation and presence of large nuclear vacuoles. The statistical comparison was conducted by ROS curves to determine the sensitivity and specificity of these two diagnostic tools.

RESULTS: The accumulative clinical pregnancy rate in this group was 54.7%.

The most predictive cut-off of pregnancy was 25.5% of DNA fragmentation with a negative predictive value 67.6% (P <0.002). Regarding the degree of vacuolization, the best predictor of pregnancy was about 73.5% of vacuolated sperm grade III + IV, with a negative predictive value of 39.4%. (P=0.09), being not statistically significant.

CONCLUSION: Sperm DNA fragmentation above 25.5%, indicates high probability of failure in IVF treatment. The result of the high magnification sperm analysis does not allow us to predict whether patients will become pregnant or not. Nowadays our center is developing additional studies with donors to establish accurately the predictive degree of such analysis.

O-240 Wednesday, October 19, 2011 11:30 AM

LEISURE-TIME EXERCISE BEHAVIOR INFLUENCES SEMEN PARAMETERS IN MEN ATTENDING AN INFERTILITY CLINIC. M. Murakami, M. Kawamoto, K. Murakami, M. Kubojima, K. Shiraishi, T. Kuramoto. Kuramoto Women's Clinic, Fukuoka, Japan; Department of Urology, Yamaguchi University School of Medicine, Ube, Yamaguchi, Japan.

OBJECTIVE: Regular exercise is associated with many health benefits, but data on its effects on male reproductive functions are limited. We examined the association between exercise and semen quality. The primary outcome was self-reported physical activity in metabolic equivalent hours per week (MET-h/w).

DESIGN: A prospective study.

MATERIALS AND METHODS: From April 2010 to April 2011, 275 men attending our IVF center completed the Godin Leisure-Time Exercise Questionnaire (Godin et al., 1986). We determined the average frequency and duration of strenuous (e.g., running), moderate (e.g., brisk walking), and mild (e.g., easy walking) exercise during free time in a typical week. To calculate total MET-h/w, we multiplied the frequencies of each of the 3 types of exercises by the reported duration (hours), weighted by the assigned MET score of 9, 5, and 3, respectively, and summed. Responders provided >2 semen samples. Men with conditions that could impair reproduction (e.g., varicocele, severe oligospermia, endocrine abnormalities) were excluded, resulting in inclusion of 215 responders, who were grouped by MET-h/w scores (A, <3; B, 3 to <9; and C, >9). Data were analyzed by ANOVA or χ^2 test.

RESULTS: Mean age and body mass index were similar among the groups. In semen analysis, total motility was significantly higher in group B than in group A ($P < 0.05$). Group B had significantly fewer men with <40% motile sperm ($P < 0.05$) than did group A.

	Group (MET-h/w)		
	A (<3), n = 107	B (3 to <9), n = 49	C (≥9), n = 59
Semen volume (SV, mL)	2.7 ± 0.12	2.9 ± 0.17	2.8 ± 0.15
N (%) men with <1.5 mL SV	16 (15.0)	4 (8.2)	5 (8.5)
Sperm concentration (SC, x 10^6/ml)	52.4 ± 3.3	52.7 ± 5.0	45.7 ± 3.7
N (%) men with <15 x 10^6/ml SC	13 (12.1)	7 (14.3)	8 (13.6)
Total motility (TM, %)	48.2 ± 1.3	53.3 ± 1.9*	49.9 ± 2.2
N (%) men with <40% TM	33 (30.8)	7 (14.3)*	16 (27.1)

* $P < 0.05$ vs. group A

CONCLUSION: Sperm motility is higher in men performing moderate exercises than in sedentary men. Moderate exercises may reduce the risk of male subfertility.

O-241 Wednesday, October 19, 2011 11:45 AM

SPERM DNA DAMAGE MEASURED BY THE SPERM CHROMATIN STRUCTURE ASSAY AND BIRTH CHARACTERISTICS IN CHILDREN CONCEIVED BY ASSISTED REPRODUCTION. M. Bungum, L. Bungum. Reproductive Medicine Centre, Skanes University Hospital, Malmoe, Sweden.

OBJECTIVE: High levels of sperm DNA damage hinder fertility *in vivo* but not *in vitro*. It is a source of worry that following *in vitro fertilisation* (IVF) sperm DNA damage, if not repaired by the oocyte might have a negative impact on the offspring. The aim of this study was to assess if a high