

Journal of ecology of Health & Environment *An International Journal* 

http://dx.doi.org/ 10.18576/jehe/070201

# Housewives Life Daily Tasks Style and their Impact to Prevent Body Weight Gain Associated with Birth Control pills Side effects

Abd-el-Kader Benchehida, Mohammed Zerf\*, Mime Mokhtar, HAMZAOUI Hakim, Lakhdar Messaliti, Mohamed HADJAR KHERFANE.

Sports Training, Physical Education Institute Laboratory OPAPS, University of Abdel Hamid Ibn Badis, Mostaganem, Algeria

Received: 21 Feb. 2019, Revised: 22 Mar. 2019, Accepted: 24 Mar. 2019. Published online: 1 May 2019.

Abstract: The contraceptive control pill is a hormone-based method of preventing pregnancy (1, 2, 3). Confirmed by several studies via their side effect to increase the weight gain (2). However, a recent Cochrane systematic review found that weight gain is not associated with contraceptive use (4-5-6-7). Regarding those contradictions, guide users to Housewives life daily tasks style and their impact to prevent body weight gain associated with Birth control pills Side effects. To archive this objective, we tested 30 women Housewives taking the contraceptive pills, age  $\leq 22$  by Rockport Fitness Walking Test and a QST of their daily task activates to define the lifestyle chosen by our sample.

As limits of this modest study, we confirm:

• Domestic tasks do not help the housewife to keep her body fitness.

• Domestic tasks plus participation in regular physical exercises are more associated with prevents of body weight gain among Housewives taking Birth control pills.

Keywords: routine, weight loss, housewife, Birth control pill.

## **1** Introduction

The physical exercise is widely considered an essential component of a healthy lifestyle (8). Generally achieved through proper moderate or vigorous physical exercise (9). Integrated to maintain or achieve a healthy weight. From the above evidence, our attention in this study is to inspect the side effects of Pregnancy control technique (10) (11). Confirmed by clinical studies through their side effects (12) on increases of weight gain, the opposite of U.S. Food and Drug Administration (FDA) that official weight gain is not associated with contraceptive use (13). Since those drugs are the widest medicament prescribed in women's history (11). However, Holy Grigg-Spall (2013) approves that there are a growing number of women looking to replacements of hormonal methods to prevent their pregnancy (14). Admitting by Linda Lewis Alexander, et al (2016) via their side effects that caused headaches, bloating, nausea, irregular bleeding and spotting, breast tenderness (15). As well as Riewald, Scott, et al (2015) that confirmed their effects on weight gain, fatigue among the female athletes (16). Through denote that more than 60% women do not exercise regularly physical fitness, according to Patricia Floyd, et al (2007) and weight gain, fatigue is most side

effects of the contraceptive pills. Documented by Hales, (2000) via weight loss that appears only to be maintained when healthy eating is combined with maintenance of regular exercise (17). Our goals trendy this study come to confirm or reject the hypotheses, which confirm that, hormonal contraceptive pills may cause a weight gain in young women (18) (19).

## 2 Methodology

### 2.1 Study design<

This study based on Rockport Fitness Walking Test as a qualitative test to measure VO2max and the corresponding fitness category (23).

Listed in table 2 confirmed by Jerome E. Kotecki as a valid test to estimate VO2max (26). Report by Alton L, et al(2015) as efficiently cardiorespiratory test (27). Confirmed by Wener W.K, et al (28) not only to estimate VO2max but also their corresponding fitness category (29). Were having a maximum oxygen consumption (VO2 max)



of >35 ml/kg/min (i.e., 10 METS) have sufficient fitness for good health (30-31).

For the lifestyle chosen by our examiners. We based on above Interrogate:

Describe your day's weekly tasks

- My duty is summed up in:
- Only Domestic tasks+ Avoids walking
- Domestic tasks +Occasional walking as chopping
- Domestic tasks +regularly walking
- Domestic tasks +modest physical activity at home

• Domestic tasks +Participates regularly in heavy physical exercise.

As well as body fat to estimate the percentage of body fat and its corresponding category: Healthy ranges for women range between 17-24% where a level of 30% body fat is considered unhealthy and at a level of increased risk. 20-40 yrs. old: Under fat: under 21 percent, Healthy: 21-33 percent, Overweight: 33-39 percent, Obese: Over 39 percent (24) to calculate body fat percentage we practice the blew formula:

Body Fat Percentage = (1.20 x BMI) + (0.23 x Age) - 5.4. (25).

### 2.2. Study Subjects:

30 married women housework accept to participate in the present study, their age  $(22\pm 0.69)$  and their percentage daily weekly tasks, which is more active than inactive based on Interrogate. A thing, which lines with the level of vo2max calculates based on the Rockport Fitness Walking Test.

# Table 1 shows the percentages day weekly tasks for the total group

Describe your day's weekly tasks						
Only	Domestic Domestic Domestic Domestic					
Domestic	tasks +	tasks	tasks +	tasks		
tasks+	Occasional	+regularly	modest	+Participates		
Avoids	walking as	walking	physical	regularly in		
walking	chopping		activity	heavy		
			at home	physical		

				exercise
3	6	11	4	6
10%	20%	36,66%	13,33%	20%

Founded on Rockport Fitness Walking, our sample is categorized into five levels.

 Table 2 shows the level of test Rockport Fitness Walking for the total group

Superior	Excellent	Good	Fair	Poor
5	6	10	5	4
13,33%	23,33%	33,33%	16,66%	13,33%

#### 2.3. Statistical analysis

Statistical procedures were done using SPSS 21.0. The Baseline characteristics of the sample homogeneity were calculated by ANOVA which are not significant in Age, Weight and Height in the opposite of the others factors studies listed in table 3 and table 5. In addition, the alpha coefficient for Fitness category and day's weekly tasks items is 0.966, suggesting that the items have relatively high internal consistency where the calculi of Correlation de Pearson shows a stronger association of the two variables. **Table 3 shows homogeneous groups Samples in age and weight** 

tests		Sample	F	Sig.
AGE	Mean	22	.481	.750
	SD	0.69		
weight	Mean	45.10	.31	.87
	SD	3.53		

Table 4 shows relatively high internal consistencybetween the Fitness category and day's weekly tasksbased on alpha coefficient and Pearson Correlation.

variables	Correlation de Pearson	Cronbach's alpha
Fitness category	0,968**	0,966*
day's weekly tasks	-	
**. The correlation	is significate at 0, 01 (	bilateral).

### **3** Results and Discussion

Our data analysis consisted of the computation of the means, standard deviations, the ANOVA with the LSD and Correlation Paired Samples. Listed in Table 4 shows that all the comparison with ANOVA are significant, which allows users to calculate LSD present in Table 5.



Table 5 present the differences among group meansbased on fitness category.

tests			F	P≤0,05
Body fat	Mean±SD	21.05±1.21	119.1 4	0.00
VO2max	Mean±SD	35.27±6.31	211.6 9	0.00
Heart Rate	Mean±SD	142.5±5.25	2.57	0.06
Time walking	Mean±SD	19.17±1.78	243.8 7	0.00

Table 6 present the multi-comparison LSD for thevariables selected based on fitness category

p≤0,05		Poor	Fair	Goo	Excellen	Superio
•				d	t	r
Body fat	Poor		0.83*	1.81*	2.24*	3.41*
	Fair	-0.83*		0.97*	1.36*	2.58*
	Good	-1.81*	-0.97*		0.40*	1.63*
	Excellen t	-2.24*	-1.36*	0.40*		1.21*
	Superior	-3.41*	-2.57*	- 1.63*	-1.21*	
VO2max	Poor			6.94*	10.78*	16.24*
	Fair			6.08*	9.90*	15.42*
	Good	-6.94*	-6.08*		5.52*	9.33*
	Excellen	-	-9.94*	-		5.52*
	t	10.78*		5.52*		
	Superior	- 16.24*	- 15.42 *	- 9.33*	-5.52*	
Heart	Poor					6.84*
Rate	Fair					7.51*
	Good					
	Excellen t					
	Superior	-6.84*	-7.51*			
Time	Poor			2.07*	2.99*	4.58*
walking	Fair			1.82*	2.78*	4.39*
	Good	-2.07*	-1.82*		0.93*	2.53*
	Excellen	-2.99*	-2.78*	-		1.60*
	t			0.93*		
	Superior	-4.58*	-4.39*	- 2.53*	-1.60*	

Table 7 present the Pearson Correlation betweenvariables selected in this study based on the fitnesscategory

p≤ O, O5		Body fat	VO2max	Heart Rate	Time walking
Pearson Correlation	Poor	0.93**	-0.92**	- 0.49**	0.92**
	Fair	0.91**	-0.91**	- 0.61**	0.91**
	Good	- 0.49**	0.61**	0.93**	-0.55**
	Excellent	- 0.93**	0.87**	0.95**	-0.93**
	Superior	- 0.96**	0.93**	0.93**	-0.93**

Through the table, 6 and 7 our groups are classified based on fitness category, according to Vo2max values were those values line with the percentages day weekly tasks for the total group taible1.3 confirmed in one hand by Pearson Correlation table 7, which is strongly positive for all the variables selected in case of category (Good - Excellent -Superior) except the body fat which is strongly negative in the opposite of the category (Poor - Fair). In another hand the LSD table 6 shows that the Domestic tasks do not help the housewife to keep her body fitness, which contributes to raising their heart rate to walk one-mile in the opposite of the category (Good - Excellent - Superior) in their body and adapted to these efforts. Thing, which we confirm the benefice of physical loads daily in decreasing the Body fat percentage that is more associated with low physical fitness (32). Admitted by similarities as need physical daily tasks exercise accounts as a major cause of chronic diseases. (33).

In the opposite of the active daily established in this study as key physiological responses permitting housewife to meet the challenges of the effort (34) experimented in this study.

Needing from housewife to increase their daily not only by Domestic tasks but also based on regular physical exercises. Which is more associated with prevents of body weight gain among Housewives taking Birth control pill. Confirmed by Lopez LM, et al (2013) (35) and Chebet JJ, et al (2015) (36) via the side effects of the pills contraceptive consistently in weight gain additional to fatigue, due to a complex metabolic disorder, according to Amanda Mularz, et al (2016) (37). While the soliciting for our women resides in the regular physical activity which the most effective way to develop multiple adaptations within skeletal muscles and the cardiorespiratory system, where those benefits provide a positive outcome for the prevention and treatment of many metabolic disorders (38). Whereas Lack of exercise should rather be perceived as "abnormal" and associated with numerous health risks (39). Reports in this study via athletics performance (40) and body functions (41). Think confirmed by Jordan Metzl, et al (2014) as body responds to exercise (42), as well as Henriques A, et al., (2015) (43) via the risk weight gain raise fatigue. Our outcomes confirmed.

The benefit of additional physical activity in preventing weight gain thinks confirmed in the levels of physical activity, which is less likely to gain weight (44). Showed by S. Y. S. Kimm, et al, (2005) as a relation between physical activity and BMI levels (overweight and obesity) (45). Thing confirms by L. Petersen, P, (2004) in the relationship between physical activity participation and development of obesity (46). A result that corresponds with our data collects and analysis, which confirmed the risk of % Body Fat who has a strong positive correlation with level VO2max, Heart Rate and the Time walking performance. Records in the favour of woman more active (47-48-49-50).

### **4** Conclusions



Lifestyle comprises daily tasks and activities of daily living within an individual's environment. It includes the ability to perform tasks related to grooming, housekeeping, and preparing meals (51). As Algeria is Mediterranean lifestyle Donato F et al (2016) confirm that this type of life required regular PA in daily tasks (52). From the approved, we inform our women, which take birth control pills and is less active:

1. Birth pills have potential side effects on body health fitness (53).

2. The major side effect reported to birth control pill is weight gain (54-55) due to steroid hormones in oral contraceptives, which affect the carbohydrate and lipid metabolism (56).

In our experience on this topic, we agree that contraceptive control pill increased the Body fat (11). As well as additional physical activity is recommended for the wellbeing of Arab women (57). Especially for housewife that is encourage to enhance their daily lifestyle with additional physical program (58), which increased their cardiovascular exercises, diet and recipe (59) to minimise the effects of this type of medication (60).

### References

- 1. Stephen Maisto, Mark Galizio, Gerard Connors. Drug Use and Abuse USA: CengageBrain.com; 2014.
- George A Bray, Claude Bouchard. Handbook of Obesity : Clinical Applications. 2nd ed. USA: CRC Press; 2014.
- Mody SK, Han M. Obesity and contraception. Clin Obstet Gynecol. 2014 Sep; 57(3): p. 501-7.
- Great Britain. Parliament: House of Lords: Science and Technology. Sport and Exercise Science and Medicine Committee TSO Shop, editor. UK: Sport and Exercise Science and Medicine; 2012.
- Thomas F. Cash,Linda Smolak. Body Image: A Handbook of Science, Practice, and Prevention USA: Guilford Press; 2012.
- 6. Committee on Body Composition, Nutrition, and Health of Military Women,Institute of Medicine. Food and Nutrition Boar. Assessing Readiness in Military Women USA: National Academies Press; 1998.
- 7. IDEA Health & Fitness. Inspire Women to Fitness USA: IDEA Health & Fitness Assoc; 2003.
- 8. Andrew Baum, PhD,Richard Contrada, PhD. The Handbook of Stress Science: Biology, Psychology, and Health UK: Springer Publishing Company; 2010.
- 9. Paul Davis, Charlene Weaving. Philosophical Perspectives on Gender in Sport and Physical Activity UK: Routledge; 2009.
- Howard I. Shapiro. The new birth-control book: a complete guide for women and men USA: Prentice Hall Press; 1988.
- 11. Rachel Snow, Peter Hall. Steroid Contraceptives and Women's Response : UK: Springer Shop; 2012.
- 12. Mayo Clinic. Guide to Living with a Spinal Cord Injury

USA: Demos Medical Publishing; 2009.

- 13. Bonnie G. Smith. The Oxford Encyclopedia of Women in World History UK: Oxford University Press; 2008.
- Holy Grigg-Spall. Sweetening the Pill: or How We Got Hooked on Hormonal Birth Control US: zero-books; 2013.
- Linda Lewis Alexander, William Alexander, Judith H. LaRosa. New Dimensions in Women's Health US: Jones & Bartlett Learning; 7 edition; 2016.
- Riewald, Scott, Rodeo, Scott. The science of Swimming Faster US: Human Kinetics; 2015.
- Hales. Ie Inv Fitness/Well W/Log USA: Brooks/Cole; 2000.
- Charles R. B. Beckmann. Obstetrics and Gynecology US: Wolters Kluwer Health; 2010.
- Michele Kettles, Colette L. Cole, Brenda S. Wright. Women's Health and Fitness Guide USA: Human Kinetics; 2006.
- William E Prentice. Get Fit, Stay Fit USA: F.A. Davis; 2015.
- 21. John Porcari,Cedric Bryant,Fabio Comana. Exercise Physiology USA: F.A. Davis; 2015.
- 22. D. Margaret Costa, Sharon Ruth Guthrie. Women and Sport: Interdisciplinary Perspectives US: Human Kinetics; 1994.
- HEYWOOD, V. Advance Fitness Assessment & Exercise Prescription. 3rd ed. USA: Human Kinetics; 1998.
- 24. Shweta Rastogi. Eat Right To Stay Bright Manage Diet to Manage Disease India: Popular Prakashan; 2010.
- 25. Don Colbert. Dr Colbert's "I Can Do This" Diet: New medical breakthroughs that use the power of your brain and body chemistry to help you lose weight and keep it off for life USA: Siloam; 2011.
- Jerome E. Kotecki. Physical Activity & Health: An Interactive Approach: An Interactive Approach US: Jones & Bartlett Learning; 3 edition; 2010.
- 27. Alton L. Thygerson, Steven M. Thygerson. Fit to Be Well US: Jones & Bartlett Learning; 4 edition; 2015.
- Wener W.K. Hoeger, Sharon A. Hoeger. Fitness and Wellness US: CengageBrain.com; 2016.
- Wener W.K. Hoeger, Sharon A. Hoeger. Principles and Labs for Fitness and Wellness US: CengageBrain.com; 2015.
- Roger G. Eston, Thomas Reilly. Kinanthropometry and Exercise Physiology Laboratory Manual: Anthropometry US: Taylor & Francis; 2009.
- 31. Greg Welk. Physical Activity Assessments for Healthrelated Research US: Human Kinetics; 2002.
- 32. Garcia-Pastor T, Salinero JJ, Sanz-Frias D, Pertusa G, Del Coso J. Body fat percentage is more associated with low physical fitness than with sedentarism and diet in male and female adolescents. Physiol Behav. 2016 Jul; 26(165): p. 166-172.
- Frank W. Booth, Christian K. Roberts, Matthew J. Laye. Lack of exercise is a major cause of chronic diseases. Compr Physiol. 2012 Apr; 2(2): p. 1143– 1211.
- Asok Kumar Ghosh. Anaerobic Threshold: Its Concept and Role in Endurance Sport. Malays J Med Sci. 2004 Jan; 11(1): p. 24–36.
- 35. Lopez LM, Edelman A, Chen M, Otterness C, Trussell J, Helmerhorst FM. Progestin-only contraceptives:

- 36. Chebet JJ, McMahon SA, Greenspan JA, Mosha IH, Callaghan-Koru JA, Killewo J, Baqui AH, Winch PJ. Every method seems to have its problems"-Perspectives on side effects of hormonal contraceptives in Morogoro Region. Tanzania. BMC Womens Health. 2015; 1(97): p. 3-15.
- Amanda Mularz, Steven Dalati, Ryan A. Pedigo. Ob/Gyn Secrets US: Elsevier Health Sciences; 2016.
- B. K. Pedersen. The anti-inflammatory effect of exercise: its role in diabetes and cardiovascular disease control. Essays in Biochemistry. 2006; 42: p. 105–117.
- Jean-Philippe. Physical Activity Plays an Important Role in Body Weight Regulation. Journal of Obesity. 2011; p. 11.
- 40. Dagny Scott, Dagny Scott Barrios. Runner's World Complete Book of Women's Running: The Best Advice to Get USA: Rodale; 2000.
- 41. Maryanne Hochadel. The AARP® Guide to Pills: Essential Information on More Than 1,200 Prescription & Nonprescription Medications, Including Generics. 1st ed. Jerry Avorn M.D., editor. US: Sterling; 2006.
- 42. Jordan Metzl, Andrew Heffernan. The Exercise Cure: A Doctor's All-Natural, No-Pill Prescription for Better US: Rodale Books; 2014.
- 43. Henriques A, Severo M, Alves L, Barros H, Azevedo A. Weight change and its determinants in Portuguese adult women: a longitudinal analysis in the EPIPorto cohort. J Epidemiol Community Health. 2015.
- 44. K. H. Schmitz, D. R. Jacobs Jr., A. S. Leon, P. J. Schreiner, B. Sternfeld. Physical activity and body weight: associations over ten years in the CARDIA study. Coronary Artery Risk Development in Young Adults. International Journal of Obesity and Related Metabolic Disorders. 2000; 24(11): p. 1475–1487.
- S. Y. S. Kimm, N. W. Glynn, E. Obarzanek et al. Relation between the changes in physical activity and body-mass index during adolescence: a multicentre longitudinal study. Lancet. 2005; 366(9482): p. 301– 307.
- L. Petersen, P. Schnohr, T. I. A. Sørensen. Longitudinal study of the long-term relation between physical activity and obesity in adults. International Journal of Obesity. 2004; 28(1): p. 105–112.
- 47. Zerf Mohammed. Impact of Preventing Pregnancy Methods and Their Relationships with the Level of Growth Fitness Body Health housewife Case Women Newlyweds. American Journal of Sports Science and Medicine. 2015; 3(5): p. 90-95.
- John McLester, Peter St. Pierre. Applied Biomechanics: Concepts and Connections USA: CengageBrain.com; 2007.
- 49. Cornelis Groot, Leo Margolis. Physiological Ecology of Pacific Salmon US: UBC Press; 2010.
- William E. Garrett, Donald T. Kirkendal. Exercise and Sport Science USA: Wolters Kluwer Health; 2000.
- Donna R. Falvo. Medical and Psychosocial Aspects of Chronic Illness and Disability US: Jones & Bartlett Learning; 2005.
- 52. Donato F. Romagnolo, Ornella I. Selmin. Mediterranean Diet: Dietary Guidelines and Impact on Health and Disease US: Humana Press; 2016.
- 53. Philip Maffetone. The Big Book of Health and Fitness

USA: skyhorse publishing; 2012.

- Dominique G. Poitout. Bone Metastases: Medical, Surgical and Radiological Treatment UK: Springer Shop; 2013.
- 55. Jane Rice. Principles of Pharmacology for Medical Assisting US: CengageBrain.com; 2016.
- Shlomo Melmed, Kenneth S. Polonsky, P. Reed Larsen. Williams Textbook of Endocrinology US: Elsevier Health Sciences; 2015.
- 57. Khalid S. Almuzaini. physical activity recommendations and exercise prescriptions guidelines for the Arab nations. In Nutrition and physical activity in the Arab country of the near east; 200; Egypt. p. 82-101.
- Hazzaa M Al-Hazzaa. Health-enhancing physical activity among Saudi adults using the International Physical Activity Questionnaire (IPAQ). Public Health Nutrition. 2007 January; 10(1).
- 59. Hyun Sil Jeong. Alzheimer's Disease in the Middleaged. 1st ed. US: Nova Science Publishers; 2008.
- 60. uis A. Moreno, Iris Pigeot, Wolfgang Ahrens. Epidemiology of Obesity in Children and Adolescents: Prevalence and Etiology UK: Springer Shop; 2011. JEHE - Paper Template