



The Impact of Hormonal Contraceptives on Cardiovascular Health and VO_{2max} : A Systematic Review



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Background

65%

of women aged 15-49 in the U.S. utilize hormonal contraceptives

68%

of women use hormonal contraceptives to mitigate menstrual symptoms rather than for strict contraceptive usage

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systematic reviews investigate the impact on BOTH cardiovascular health and VO_{2max}

Purpose

- To evaluate existing literature on hormonal contraceptives in relation to cardiovascular health and VO_{2max}
- Provide insight for women using hormonal contraceptives, aiding them in making informed decisions about their overall health and performance

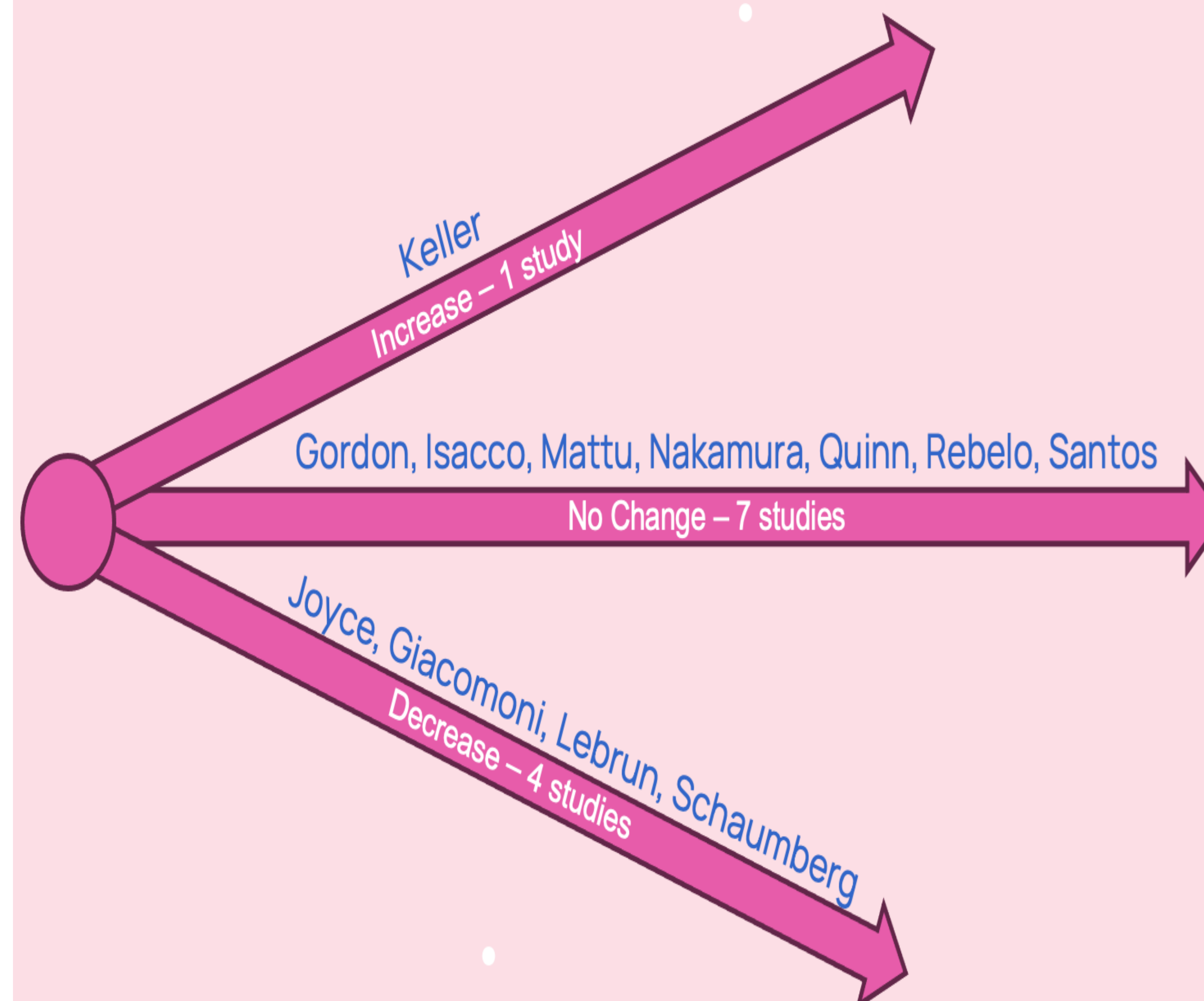
Methods

- 80 Searches:** September 2023 & January 2024
- Databases:** CINAHL Complete, EBSCO, PubMed
- Inclusion criteria:** healthy women, utilization of OCPs, IUDs, DMPA injections & contraceptive arm implants, diagnostic markers of CV disease, VO_{2max}
- Exclusion criteria:** Not accessible in English, Systematic Reviews without meta-analysis, duplicate articles
- 22 articles** included in the systematic review

Results: Cardiovascular Health

	Researchers	TC, LDL, TG	HDL	Stroke, Heart Attack, VTE, Pulm. Embolism	Other
Oral Pill (OCP)	Jimoh, Lee, Momenti, Tureki	↑			
	Glisic, Palacios			No Link	
	Palacios				↓ Mild blood pressure
	Badenhorst				↑ CRP levels
	Pirek				Narrowed peripheral blood vessels; ↑ BP
Injections	Tureki	↑ Highest	↓ Lowest		
	Cursino	↑ TG			
	Dilshad	↑	↓		↑ Fasting blood glucose
IUD	Glisic				↓ DVT hormonal vs. copper IUD
Arm Implants	Turkei	↑	↑		

Results: VO_{2max}



Outcome Measures

- TC, LDL, TG, HDL, BP, inflammatory markers (CRP)
- VO_{2max} , VO_{2peak} , hemoglobin mass

Discussion and Conclusion

- Conflicting information limits ability to make a sound conclusion on OCPs impact on CV health
- Potential link between DMPA injections and an increase in TG, LDL, and TC levels with long-term use
- Limited literature available to make conclusion about IUDs and contraceptive implants on CV health
- VO_{2max} results are mixed; however, the articles have strong conclusions
- Challenge to analyze and fully compare the short-term studies because of the differences in measurement techniques, OCP formulations, and varying length of participants on OCP
- Overall, there is more research to be done in these areas

Physical Therapy Implications

- Holistic approach to patient care
- Precautionary Measures - monitoring vitals, intake forms, referral to gynecologist (if needed)
- Patient Education - direct patients to valid resources and articles regarding hormonal contraceptives