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# Relationship of Bisphenol-A with PCOS, with a focus on Pakistan: A Systematic Review

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### **ADMINISTRATIVE INFORMATION**

Support - None.

Review Stage at time of this submission - The review has not yet started.

Conflicts of interest - None declared.

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**Amendments -** This protocol was registered with the International Platform of Registered Systematic Review and Meta-Analysis Protocols (INPLASY) on 31 August 2023 and was last updated on 26 November 2023.

### INTRODUCTION

Review question / Objective Is there a relationship between high bisphenol-A (BPA) levels and PCOS, with a focus on Pakistan.

Rationale BPA is not considered a real concern in Pakistan. There is insufficient data regarding the relationship between BPA and PCOS in Pakistan. This review will be done to show this relationship in Pakistan and the world.

**Condition being studied** Polycystic ovarian syndrome (PCOS).

### **METHODS**

**Search strategy** Google Scholar and PubMed will be used for the literature search. The search will be

done using the keywords "polycystic ovarian disease", "PCOS", "Bisphenol A", "EDCs", and "Pakistan". Original research articles from the last five years, i.e., from the year 2018 to 2023, will be included in this systematic literature review.

**Participant or population** Women suffering from PCOS anywhere in world exposed to BPA.

**Intervention** Effect of Bisphenol-A (BPA).

Comparator None.

Study designs to be included RCTs, Cohort studies, Case-control studies.

Eligibility criteria Inclusion criteria were original researches, human studies, including PCOS patients with high BPA levels in urine or blood, and

showing relationship between PCOS and BPA level.

Information sources Journal article, books.

Main outcome(s) PCOS.

**Quality assessment / Risk of bias analysis** AMSTAR-2 will be used for quality assessment.

**Strategy of data synthesis** Results of the studies will be studied and compiled as 'effect' or 'no effect'.

Subgroup analysis No subgroups defined.

**Sensitivity analysis** It will be done during the systematic review.

**Language restriction** English language will be preferred.

Country(ies) involved Saudi Arabia.

Keywords PCOS, Bisphenol-A, EDCs.

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