

## BPA Study Report Card

The criteria identified in this Report Card have been established by the National Institute for Environmental Health Sciences (NIEHS) for use in evaluating research studies funded by the agency. The NIEHS criteria were developed in 2009 to provide the best parameters for assessing human health effects of BPA.

 Study Meets Criteria	 Study Criteria Unknown or not applicable	 Study fails criteria
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**Study:** Bisphenol A Promotes Cell Survival Following Oxidative DNA Damage in Mouse Fibroblasts.

**Authors:** Natalie R. Gassman, Erdem Coskun, Donna F. Stefanick, Julie K. Horton, Pawel Jaruga, Miral Dizdaroglu, Samuel H. Wilson

**Journal:** PLoS ONE 10(2): e0118819. 2015.

CRITERIA	SCORE	COMMENTS
Diet must not interfere with the sensitivity of the model to BPA		<i>In vitro</i> study.
Species and strain of animals (must be sensitive to estrogenic chemicals at low doses)		<i>In vitro</i> study.
Sufficient sample size		The methods section is vague, but it appears that wells and or/experiments were repeated in triplicate, which is reasonable for <i>in vitro</i> assays.
Internal dose of BPA (total and free BPA should be measured in blood and if possible also in urine throughout the study)		<i>In vitro</i> study.
Dose responses (single dose experiments are not acceptable)		There were two parts to this study; in one part multiple BPA doses were tested, but in the other only one dose was used.
Phenotype (endpoint must be an actual phenotype, disease/dysfunction not just toxicity)		The endpoint is a measure of DNA base excision repair capability.
Litter must be used as statistical unit for developmental exposures		<i>In vitro</i> study.
Route of exposure should be oral or justified to provide similar blood levels as oral route		<i>In vitro</i> study; also used doses that are more than 15,000,000 times higher than normal human BPA serum levels.
Males and females should be used when feasible		<i>In vitro</i> study.
Molecular targets and mechanism should be assessed when possible including gene expression, receptor binding and epigenetic studies. These effects should be linked to the exposure and the disease/dysfunction endpoints.		Study was intended to provide evidence of the mechanism for a variety of diseases that have been linked to BPA exposure; however, given that exposures in this study were over 15,000,000 times higher than normal human serum BPA levels, it is uncertain whether this mechanism would apply at lower doses.

**Note:** While the objective of the study was to elucidate the mechanism for some of the health effects that have been linked to BPA exposure, it does not provide information that is useful for BPA risk assessment due to the *in vitro* system used and the high doses employed. It is uncertain whether the results are applicable to exposures encountered in the general population.