

HOW TO SEARCH THE ORSAA DATABASE

Follow these instructions to do your own search of the ORSAA database.

Remember, this is just one example of a search done in February 2023 to look for Effects studies, so it is a snapshot in time. In February 2023, there were over 4,500 papers in the database.

Step 1 – Enter Find Mode

Open the database and select the magnifying glass icon on the top bar.

Select **Enter Find Mode**. An empty template will appear.

Go to the **Result** box (bottom left corner) and click the arrow to open the drop-down menu. To see Effect studies, choose **==Effect** (== is the operator for 'match whole word or empty').

NOTE: If you don't choose **==Effect** and you just type in 'Effect', then you will get results for all 3 categories: Effect, No Effect, and Uncertain Effect.

The screenshot displays the ORSAA database search interface. At the top, there is a navigation bar with a search icon, a 'Request' dropdown, a magnifying glass icon, a plus sign, a minus sign, a 'Perform' button, and a 'Cancel' button. Below this, there are several input fields: '1st Author' with an 'Initials' dropdown and 'Add'/'Select' buttons; 'Authors' with a 'Country' dropdown; 'Web URL' with a 'URL' button; and 'Article URL' with a 'URL' button. A 'Synopsis Below' section includes a 'Date Published' field, an '< ICNIRP Limit' dropdown, and a 'Spreadsheet View & CSV Download' button. At the bottom, there is a 'Result' dropdown menu set to '==Effect', a 'Non-Experimental Supporting Study (NESS)' dropdown, a 'Retraction' dropdown, a 'Review' button, and an 'EXIT' button. A 'Search No' field and a 'Find Paper' button are also present at the bottom left.

Step 2 – Select Study Categories

At the top, select the **Study Categories** tab.
 For this example, we will pick **in vivo** and **Animal Study**.

The screenshot shows the ARPANSA Study Categories selection interface. The 'Study Categories' tab is active. The interface is divided into several sections:

- Study Categories:** A list of categories with radio buttons for 'N' (No) and 'Y' (Yes). 'in vivo' and 'Animal Study' are selected.
- Non-Experimental Supporting Studies (NESS):** A section containing several study types:
 - Micobes
 - Human Provocation
 - Epidemiology
 - Prospective Design
 - Meta - Analysis
 - in silico
- Other Categories Non-Experimental Supporting Studies (NESS):** A section containing:
 - Review Studies
 - Non-EMF supporting study
 - Letter to the Editor - Commentary
- ARPANSA Source:** A dropdown menu and buttons for 'ARPANSA Summary' and 'Summary Totals'.
- Source Selection Table:** A table with columns for source types and radio buttons for 'N' and 'Y':

Government	Private	Public Not-for-Profit	Industry	Institutional	WHO/United Nations	Not Known
<input type="radio"/> N <input type="radio"/> Y	<input type="radio"/> N <input type="radio"/> Y	<input type="radio"/> N <input type="radio"/> Y	<input type="radio"/> N <input type="radio"/> Y	<input type="radio"/> N <input type="radio"/> Y	<input type="radio"/> N <input type="radio"/> Y	<input type="radio"/> N <input type="radio"/> Y
- Funding Source:** A large text area for entering the funding source.

Step 3 – Perform a Find

Click the blue **Perform** button at the top.

At the top you will see how many studies were found (this example shows 905/4,578).

The screenshot shows the ARPANSA search interface with the following components:

- Top Bar:** Navigation arrows, a page number '1', a search status 'Found 905 / 4,578', and a 'Quick Find' search box.
- Filter Tabs:** Article, End Points, Exposure, **Study Categories**, Effects Categories, Study Statistics.
- Study Categories Section:**
 - in vitro:** N, Y
 - in vivo:** N, Y
 - Animal Study:** N, Y
 - Plant Study:** N, Y
 - Insects:** N, Y
 - Avian:** N, Y
 - Marine:** N, Y
 - Micobes:** N, Y
 - Human Provocation:** N, Y
 - Epidemiology:** N, Y
 - Prospective Design:** N, Y
 - Meta - Analysis:** N, Y
 - in silico:** N, Y
- Non-Experimental Supporting Studies (NESS):**
 - Dosimetry Studies:** N, Y
 - Measurement Studies:** N, Y
 - Guideline Reports:** N, Y
 - Questionnaire- Survey:** N, Y
- Other Categories Non-Experimental Supporting Studies (NESS):**
 - Review Studies:** N, Y
 - Non-EMF supporting study:** N, Y
 - Letter to the Editor - Commentary:** N, Y
- ARPANSA Source:** A dropdown menu.
- Summary Buttons:** ARPANSA Summary, Summary Totals.
- Source Selection Table:**

Government	Private	Public Not-for-Profit	Industry	Institutional	WHO/United Nations	Not Known
<input checked="" type="radio"/> N <input type="radio"/> Y	<input checked="" type="radio"/> N <input type="radio"/> Y	<input checked="" type="radio"/> N <input type="radio"/> Y	<input checked="" type="radio"/> N <input type="radio"/> Y	<input type="radio"/> N <input checked="" type="radio"/> Y	<input checked="" type="radio"/> N <input type="radio"/> Y	<input checked="" type="radio"/> N <input type="radio"/> Y
- Funding Source:** A text box containing the text: "This study was supported by a grant from the Qazvin University of Medical Sciences."
- Footer:** A red bar containing the page number '51' and the title "Effects of microwaves (950 MHz mobile phone) on morphometric and apoptotic changes of rabbit epididymis".

Step 4 – Explore Individual Studies

Click the **Article** tab on the top to see the first study.

You can download the study by clicking the green **Spreadsheet View and CSV Download** button.

Select the **End Points** tab at the top to see the endpoints researchers were studying for.

Select the **Effects Categories** tab to see the effects that were found in the study.

Click the < and > buttons on the top bar to move from one article to the next.

Found 905 / 4,578

Quick Find

Article End Points Exposure Study Categories Effects Categories Study Statistics

Title: Effects of microwaves (950 MHZ mobile phone) on morphometric and apoptotic changes of rabbit epididymis

1st Author: Azadi Initials: E 36 Add Select Check for other publications by Author

Authors: Azadi Oskouyi E, Rajaei F, Safari Varianni A, Sarokhani MR, Javadi A. Country: IRN

Web URL: http://www.ncbi.nlm.nih.gov/pubmed/25060044?dopt=Abstract URL

Article URL: http://onlinelibrary.wiley.com/doi/10.1111/and.12321/abstract URL

Synopsis Below Date Published: 25/07/2014 < ICNIRP Limit

Spreadsheets View & CSV Download

Abstract

The effect of mobile phone radiation on human reproduction system is still a matter of debate. In this study, 18 male rabbits were randomly divided into two experimental groups and one control group. Experimental groups received simulated microwaves with the frequency of 950 MHz and the output power of 3 and 6 watts for 2 weeks, 2 h a day. After a week of rest, the microscopic slides from the quada of the excised epididymis were prepared. Then, the diameter of epididymis, the height of epithelium and the number of apoptotic cells in epithelium in study groups were determined. The data were compared using spss software and one-way anova test. The epithelial height and diameter of the epididymis in 3 watt and 6 watt groups had a significant decrease compared to the control group ($P < 0.001$), while the testosterone level only in 6 watt group was significantly decreased compared to control group. The rate of apoptosis in the epithelial cells of the epididymis had a significant increase only in 6 watt group compared to the control group ($P < 0.001$). This study showed that the microwaves with the frequency of 950 MHz can have negative impacts on morphometric and apoptotic changes of rabbit epididymis.

The epididymis is a tube that connects a testicle to a vas deferens in the male reproductive system.

Result: Effect Non-Experimental Supporting Study (NESS) Retraction Review EXIT

51

Step 5 – See a Summary of all the Studies

In the **Effects Categories** tab, you will see a **Find Summary Totals** button in the bottom right corner.

Click **Find Summary Totals** to get an instant summary of all the studies and what biological effects were discovered in each category.

Script Is Paused

Found 905 / 4,578

Quick Find

Find Search Summary Totals

Peer Reviewed Studies Showing Biological Effects Number of records used : **905** of **4578**

Auditory Dysfunction / Hearing loss / Tinnitus	7	Apoptosis (Programmed Cell Death)	89	Brain Tumours	2
Blood Brain Barrier Permeability Changes	16	Breast Cancer	0	Cellular Stress	36
Brain Development / Neuro Degeneration	63	Biochemical Changes	326	EEG changes / Brain Waves	24
Neuro Behavioural Effect / Cognitive Effects	141	Cell Irregularities/ Damage/ Morphological Changes	197	Effects on Mitochondria	34
Calcium Influx / Efflux	15	Fatigue	0	Altered Enzyme Activity / Protein Levels / Protein Damage	358
Circadian Rhythm Disruption	9	Altered Gene Expression	116	Headaches/Migraines	0
DNA Damage / Mutagenic / Genotoxic	97	Altered Glucose Level / Glucose Metabolism	24	Inflammation	23
Endocrine / Hormone Effects	87	Cardiovascular Effects	35	Hepatic Effects (Liver)	50
Miscarriage / Spontaneous Abortion / Foetus Resorption	2	Immune System Effects	73	Impaired / Reduced Healing/ Bone Density Changes	6
Memory Impairment	55	Oxidative Stress / ROS/ Free Radicals	287	Speech Impairment	0
Sperm / Testicular Effects	86	Sleep Effects	6	Haematological Effects	78
Tumour Promotion	12	Neurotransmitter Effects	43	Synergistic/Combinative E	32
Thyroid Effects	21	Visual Disturbances/ Ocular Effects	18	Autism	5
Leukemia	0	Parotid Gland Malignancy	1	Neoplasia/ Hyperplasia (Abnormal Tissue Growth)	4
Depression	4	Induced Adaptive Response	35	Dizziness / Vertigo / Vestibular Effects	4

 May have a role in disease pathway/ well-being
 A known disease

Continue

Step 6 - Return to the Main Screen

To return to the main screen, click on the green **Continue** button in the bottom right corner (you might have to click it more than once).

You can continue to explore individual studies in your current search results or start again at Step 1 to begin a new search.

To watch a training video of this process, go to <https://www.orsaa.org/search-examples-effect-and-category.html>