

# New Study Links Popular UK Medication to Dementia Risk

### **Description**

New research indicates that medications for overactive bladders, used by hundreds of thousands of Britons, may heighten the risk of developing dementia. These drugs, known as anticholinergics, function by inhibiting the activity of certain muscles to prevent bladder contractions, reducing incontinence and frequent urination. Nevertheless, recent findings suggest that some variants of these medications could elevate dementia risk by approximately a third.

British researchers delved into the health records of over 170,000 English patients aged 55 and above with dementia. They compared these findings with 800,000 individuals without the disorder. Their analysis revealed an 18% increase in the likelihood of a dementia diagnosis among those taking anticholinergics. The risk appeared slightly higher for men at 22% compared to 16% for women. Specific drugs were particularly concerning; oxybutynin hydrochloride users faced a 31% increased risk, while those on tolterodine tartrate experienced a 27% heightened risk.

Given these results, experts underscore the importance of considering alternative treatments for older patients with overactive bladder issues. Some anticholinergics, however, were not associated with increased dementia risk, including darifenacin, fesoterodine fumarate, flavoxate hydrochloride, propiverine hydrochloride, and trospium chloride. Additionally, another medication, mirabegron, which operates through a different mechanism, showed unclear data, warranting further investigation.

This study is not the first to draw a link between anticholinergics and dementia risk. Indeed, the exact impact of these drugs on the brain remains elusive, though some suggest that drugs like oxybutynin, due to their smaller molecular size, penetrate deeper into brain tissues. The findings, published in the British Medical Journal, emphasize the need for healthcare professionals to weigh the long-term risks when prescribing these medications.

# **Vocabulary List:**

- 1. **Anticholinergics** /,æn.tɪ.koʊ.lɪ'nɜr.dʒɪks/ (noun): A class of medications that block the action of acetylcholine used to treat various conditions including overactive bladder.
- 2. Inhibiting /In'hib.I.tin/ (verb): The act of hindering or preventing a process or action.
- 3. **Contractions** /kən'træk.ʃənz/ (noun): The shortening or tightening of muscles leading to a reduced size or volume.
- 4. **Heighten** /'haɪ.tən/ (verb): To increase or make something more intense.
- 5. **Elusive** /ɪ'luː.sɪv/ (adjective): Difficult to find catch or achieve; mysterious.
- 6. Warranting /'wo:r.ən.tɪŋ/ (verb): Justifying or necessitating a particular action or consideration.



# **Comprehension Questions**

#### **Multiple Choice**

1. What is the main concern raised by the recent research regarding medications for overactive bladders?

Option: Increased risk of developing dementia Option: Reduced risk of frequent urination

Option: Enhanced muscle activity Option: Improved bladder contraction

2. According to the research, what percentage increase in dementia risk was observed among those taking anticholinergics?

Option: 8% Option: 16% Option: 18% Option: 28%

WS.COM 3. Which specific anticholinergic drug users faced a 31% increased risk of dementia?

Option: Darifenacin

Option: Fesoterodine fumarate Option: Flavoxate hydrochloride Option: Oxybutynin hydrochloride

4. Which gender showed a slightly higher risk of dementia when taking anticholinergics, according to the study?

Option: Women Option: Men

Option: No significant difference

Option: Unknown

5. Which of the following anticholinergic drugs was NOT associated with an increased risk of dementia?

Option: Darifenacin

Option: Fesoterodine fumarate Option: Oxybutynin hydrochloride

Option: Trospium chloride

6. What is the recommendation of the experts regarding older patients with overactive bladder issues



based on the study findings?

Option: Continue with anticholinergics

Option: Switch to oxybutynin hydrochloride Option: Consider alternative treatments Option: Increase anticholinergic dosage

#### **True-False**

- 7. Anticholinergics reduce the risk of developing dementia.
- 8. Some anticholinergics, like darifenacin, were found to increase dementia risk.
- 9. The study findings suggest that more research is needed to understand the impact of mirabegron on dementia risk.
- 10. Anticholinergics primarily function to enhance bladder contractions.
- 11. Men showed a 22% increased risk of dementia when taking anticholinergics.
- 12. The risk of dementia linked to anticholinergics was higher in women than in men.

#### **Gap-Fill**

13. Ratan Naval Tata was born on
14. Ratan Naval Tata was the chairman of Tata Group from 1990 to
15. Experts suggest considering alternative treatments for older patients with overactive bladder issues to
mitigate the risk of developing
16. The study published in the British Medical Journal highlights the importance of healthcare professionals
evaluating the risks when prescribing anticholinergics.
17. Anticholinergics function by inhibiting the activity of certain muscles to prevent
contractions.
18. According to the research, users of oxybutynin hydrochloride faced a



increased risk of dementia.

### **Answer**

Multiple Choice: 1. Increased risk of developing dementia 2. 18% 3. Oxybutynin hydrochloride 4. Men

5. Darifenacin 6. Consider alternative treatments

True-False: 7. False 8. False 9. True 10. False 11. True 12. False

Gap-Fill: 13. 28 December 1937 14. 2012 15. dementia 16. long-term 17. bladder 18. 31%

## Vocabulary quizzes

#### Multiple Choice ( Select the Correct answer for each question. )

1. What term refers to any sickness or disease?

Option: Inflammation Option: Omega-6 Option: Moderation Option: Ailments

NEWS.COM 2. Which term relates to the ability to conceive a child or produce offspring?

Option: Ailments Option: Resilience Option: Fertility Option: Anxiety

3. What is a customary allowance of food and drink?

Option: Health

Option: Empowered

Option: Diet Option: Anxiety

4. Which term describes something difficult to find catch or achieve?

**Option: Contractions** 

Option: Elusive

Option: Ultraprocessed Option: Ingredients

5. Which term relates to the mental action or process of acquiring knowledge and understanding?

Option: Circulation





Option: Equate	
Option: Cognitive	9
Option: Heighten	

6. What term refers to the quality or condition of being widespread?

Option: Prevalence Option: Warranting Option: Heighten Option: Fertility

7. Which term describes a lifestyle involving much sitting and little physical activity?

Option: Resilience Option: Empowered Option: Sedentary Option: Health

8. Which term refers to a feeling of worry nervousness or unease about something with an uncertain NEWS.COM outcome?

Option: Ultrasound Option: Reassure Option: Anxiety

Option: Contemplate

9. What term describes the body's response to injury or infection often resulting in pain swelling and redness?

Option: Inhibiting

Option: Anticholinergics Option: Inflammation Option: Omega-6

10. Which term means to give someone the authority or power to do something?

Option: Empowered Option: Resilience

Option: Anticholinergics

Option: Cognitive

### Gap-Fill (Fill in the blanks with the correct word from the vocabulary list.)

l1	foods often contain high amounts of a	amounts of added sugars fats and salt.	
L2. Before making a decisior	n it is essential to carefully	the options available.	



13. Smoking can the risk of developing lung cancer.				
14. To bake a cake you need to gather all the necessary				
15. Individuals with strong are better equipped to cope with difficult situations.				
16. The severity of the situation may be further investigation.				
17 is a condition characterized by a decline in cognitive function.				
18. One should not wealth with happiness.				
19. Balancing your intake of Omega-3 and fatty acids is important for good health.				
20. Some medications work by the action of acetylcholine in the nervous system.				
Matching Sentences ( Match each definition to the correct word from the vocabulary list. )				
21. Cells with similar structure and function group together to form specific organs like the heart or lungs.				
22. This imaging technique is commonly used to monitor fetal development during pregnancy.				
23. Cooking often involves combining various components such as vegetables meat and spices to create a dish.				
24. Substances that help mix ingredients that would not typically blend like oil and water are known as .				
25. During labor the uterus experiences rhythmic tightenings known as to help with childbirth.				
26. Regular exercise and a balanced diet are crucial for maintaining overall and well-being.				
27. Some diseases have no known cure and are described as .				
28. Certain substances can prevent or slow down chemical reactions in the body which is known as their activity.				
29. The key to a healthy lifestyle often involves enjoying all things in rather than excess.				
30. Providing comfort and support to someone in distress can help them during challenging times.				



### **Answer**

**Multiple Choice:** 1. Ailments 2. Fertility 3. Diet 4. Elusive 5. Cognitive 6. Prevalence 7. Sedentary 8. Anxiety 9. Inflammation 10. Empowered

**Gap-Fill:** 11. Ultraprocessed 12. Contemplate 13. Heighten 14. Ingredients 15. Resilience 16. Warranting 17. Dementia 18. Equate 19. Omega-6 20. Anticholinergics

**Matching sentence:** 1. Tissues 2. Ultrasound 3. Ingredients 4. Emulsifiers 5. Contractions 6. Health 7. Incurable 8. Inhibiting 9. Moderation 10. Reassure

#### **CATEGORY**

1. Health - LEVEL4

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