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Level 3 – 2nd February 2023

Car fumes can change the brain in 2 hours

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<https://breakingnewsenglish.com/2302/230202-car-fumes.html>

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Please try Levels 0, 1 and 2 (they are easier).

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THE ARTICLE

From <https://breakingnewsenglish.com/2302/230202-car-fumes.html>

Breathing in air pollution could change our brain. A new study shows that car fumes can change how our brain is wired - how parts of the brain connect with other parts. The research is from the University of British Columbia in Canada. Researchers found that car fumes can change our brain's connectivity in just two hours. A researcher, Professor Chris Carlsten, was surprised at what he found. He said: "For many decades, scientists thought the brain may be protected from the harmful effects of air pollution." He added: "This study, which is the first of its kind in the world, provides fresh evidence supporting a connection between air pollution and [thinking]."

The traffic pollution study was on 25 adults. The researchers asked the adults to breathe in car fumes in a laboratory. The research team took brain scans of the adults for two hours. The scans showed that networks in the brain that we use for thinking and remembering changed. There were fewer connections between the networks. Another professor said the research was worrying. She said: "It's concerning to see traffic pollution interrupting these networks." The researchers said there needed to be more research to see how car fumes change our brain. They also advised people to close car windows when in traffic. The brains of the 25 people returned to normal after they breathed clean air.

Sources: <https://www.sciencealert.com/inhaling-car-fumes-can-change-a-brains-connectivity-in-just-2-hours-study-finds>
<https://neurosciencenews.com/air-pollution-functional-connectivity-22355/>
<https://ca.news.yahoo.com/breathing-exhaust-fumes-impairs-human-brains-within-two-hours-154151191.html>

WARM-UPS

1. CAR FUMES: Students walk around the class and talk to other students about car fumes. Change partners often and share your findings.

2. CHAT: In pairs / groups, talk about these topics or words from the article. What will the article say about them? What can you say about these words and your life?

breathing / air pollution / brain / wired / car fumes / connectivity / scientists / world / traffic / breathe / brain scans / networks / professor / research / car windows / normal

Have a chat about the topics you liked. Change topics and partners frequently.

3. ELECTRIC CARS: Students A **strongly** believe all cars should be electric from next year; Students B **strongly** believe the opposite. Change partners again and talk about your conversations.

4. THE BRAIN: How do these things affect people's brain? How do they affect your brain? Complete this table with your partner(s). Change partners often and share what you wrote.

	Effects	My Brain
Car Fumes		
Sleep		
Studying English		
Hiking		
Chocolate		
The Internet		

5. BREATHE: Spend one minute writing down all of the different words you associate with the word "breathe". Share your words with your partner(s) and talk about them. Together, put the words into different categories.

6. POLLUTION: Rank these with your partner. Put the worst types of pollution at the top. Change partners often and share your rankings.

- Car fumes
- Factory smoke
- Forest fires
- Plastic
- Litter
- Noise pollution
- Light pollution
- Water pollution

VOCABULARY MATCHING

Paragraph 1

- | | |
|--------------|--|
| 1. breathing | a. Of a device or network in which different parts are joined and communicate with each other. |
| 2. pollution | b. All of the facts or information that show something is true. |
| 3. fume | c. The action of taking air into the lungs and letting out. |
| 4. wired | d. An amount of gas or smoke that smells bad or is dangerous to breathe in. |
| 5. connect | e. The dirty, harmful or poisonous things in the air, rivers and the environment. |
| 6. decade | f. Bring or join together. |
| 7. evidence | g. A period of ten years. |

Paragraph 2

- | | |
|------------------|---|
| 8. traffic | h. A room or building equipped for scientific experiments, research, or teaching, or for the manufacture of drugs or chemicals. |
| 9. laboratory | i. Move an electromagnetic light over something to take a photo or image of it. |
| 10. scan | j. Gave suggestions to someone about the best thing to do. |
| 11. concerning | k. The cars, buses, trucks, etc. on a road. |
| 12. interrupting | l. Went back to how or where things were before. |
| 13. advised | m. Stopping the continuous progress of an activity. |
| 14. returned | n. Worrying. |

BEFORE READING / LISTENING

From <https://breakingnewsenglish.com/2302/230202-car-fumes.html>

1. TRUE / FALSE: Read the headline. Guess if a-h below are true (T) or false (F).

1. Car fumes can help to wire our brain. **T / F**
2. The research is from a university in Colombia. **T / F**
3. A researcher said the findings in his research weren't surprising. **T / F**
4. The article in the study is the first of its kind. **T / F**
5. Over 250 adults had brain scans as part of the research. **T / F**
6. Researchers scanned the brains of adults for two hours. **T / F**
7. A researcher advised people to close car windows in traffic. **T / F**
8. The brains of people who breathed car fumes returned to normal. **T / F**

2. SYNONYM MATCH: (The words in **bold** are from the news article.)

- | | |
|----------------------|---------------|
| 1. change | a. different |
| 2. wired | b. concerning |
| 3. other | c. proof |
| 4. harmful | d. shut |
| 5. evidence | e. damaging |
| 6. laboratory | f. connected |
| 7. showed | g. fresh |
| 8. worrying | h. revealed |
| 9. close | i. transform |
| 10. clean | j. lab |

3. PHRASE MATCH: (Sometimes more than one choice is possible.)

- | | |
|---|-----------------------------|
| 1. Breathing in | a. air |
| 2. change how our brain | b. with other parts |
| 3. how parts of the brain connect | c. scans of the adults |
| 4. protected from the harmful | d. to normal |
| 5. the first of its kind | e. is wired |
| 6. The research team took brain | f. in the world |
| 7. There were fewer connections between | g. in traffic |
| 8. close car windows when | h. air pollution |
| 9. The brains of the 25 people returned | i. the networks |
| 10. they breathed clean | j. effects of air pollution |

GAP FILL

From <https://breakingnewsenglish.com/2302/230202-car-fumes.html>

Breathing in air (1) _____ could change our brain. A new study shows that car fumes can change how our brain is (2) _____ - how parts of the brain connect with other (3) _____. The research is from the University of British Columbia in Canada. Researchers found that car fumes can change our brain's (4) _____ in just two hours. A researcher, Professor Chris Carlsten, was surprised at what he (5) _____. He said: "For many decades, scientists thought the brain may be protected from the (6) _____ effects of air pollution." He added: "This study, which is the first of its (7) _____ in the world, provides (8) _____ evidence supporting a connection between air pollution and [thinking]."

parts
found
fresh
pollution
connectivity
kind
wired
harmful

The traffic pollution study was on 25 (9) _____. The researchers asked the adults to breathe in car fumes in a (10) _____. The research team took (11) _____ scans of the adults for two hours. The scans showed that networks in the brain that we use for thinking and remembering changed. There were (12) _____ connections between the networks. Another professor said the research was (13) _____. She said: "It's concerning to see traffic pollution interrupting these networks." The researchers said there (14) _____ to be more research to see how car fumes change our brain. They also advised people to (15) _____ car windows when in traffic. The brains of the 25 people returned to normal after they breathed (16) _____ air.

laboratory
fewer
close
adults
clean
needed
brain
worrying

LISTENING – Guess the answers. Listen to check.

From <https://breakingnewsenglish.com/2302/230202-car-fumes.html>

- 1) A new study shows that car fumes can change how our _____
 - a. brain is weird
 - b. brain is wired
 - c. brain is wayward
 - d. brain is weighed
- 2) how parts of the brain connect _____
 - a. with another parts
 - b. with others' parts
 - c. with other parts
 - d. with othering parts
- 3) Researchers found that car fumes can change _____
 - a. a brain's connectivity
 - b. hour brain's connectivity
 - c. awe brain's connectivity
 - d. our brain's connectivity
- 4) For many decades, scientists thought the brain may be protected from _____
 - a. the harmful affects
 - b. the harmful reflects
 - c. the harmful effects
 - d. the harmful afflicts
- 5) This study, which is the first of its kind in the world, _____
 - a. provides fresh evidence
 - b. provides flesh evidence
 - c. provides flush evidence
 - d. provides flash evidence
- 6) The traffic pollution study was _____
 - a. in 25 adults
 - b. on 25 adults
 - c. in 25 aid dolts
 - d. on 25 add dolts
- 7) The researchers asked the adults to breathe in car fumes _____
 - a. in a lavatory
 - b. in a laboratory
 - c. in a lab oratory
 - d. in a lab lottery
- 8) scans showed that networks in the brain that we use for thinking _____
 - a. and remember ring changed
 - b. and remembering changed
 - c. and remember in changed
 - d. and rim member ring changed
- 9) They also advised people to close car windows _____
 - a. when in traffic
 - b. when on traffic
 - c. when intra-flick
 - d. when intra-thick
- 10) The brains of the 25 people returned to normal after they _____
 - a. breezed clean air
 - b. breathed cream air
 - c. breezed cream air
 - d. breathed clean air

LISTENING – Listen and fill in the gaps

From <https://breakingnewsenglish.com/2302/230202-car-fumes.html>

Breathing in air (1) _____ our brain. A new study shows that car fumes can change how our brain is wired - how parts of the brain (2) _____ parts. The research is from the University of British Columbia in Canada. Researchers found that car (3) _____ our brain's connectivity in just two hours. A researcher, Professor Chris Carlsten, (4) _____ what he found. He said: "For many decades, scientists thought the brain may (5) _____ the harmful effects of air pollution." He added: "This study, which is the first of its kind in the world, (6) _____ supporting a connection between air pollution and [thinking]."

The traffic (7) _____ on 25 adults. The researchers asked the adults to breathe in car fumes in a laboratory. The research team took (8) _____ the adults for two hours. The scans showed that networks in the brain that we use for thinking and remembering changed. There (9) _____ between the networks. Another professor said the research was worrying. She said: "It's (10) _____ traffic pollution interrupting these networks." The researchers said there needed (11) _____ research to see how car fumes change our brain. They also advised people to close car windows when in traffic. The brains of the 25 people returned to normal after they (12) _____.

COMPREHENSION QUESTIONS

From <https://breakingnewsenglish.com/2302/230202-car-fumes.html>

1. What does the article say car fumes can do to the wiring of our brain?
2. In which country was the research done?
3. How did a researcher feel about his research?
4. For how long have scientists thought air pollution doesn't harm the brain?
5. How many other studies of this kind have there been?
6. How many adults participated in this research?
7. What are the affected areas of the brain used for?
8. What did a researcher say was needed?
9. What did a researcher advise people to close?
10. What happened to the participants' brains after they breathed clean air?

MULTIPLE CHOICE - QUIZ

From <https://breakingnewsenglish.com/2302/230202-car-fumes.html>

- 1) What does the article say car fumes can do to the wiring of our brain?
 - a) confuse it
 - b) rewire it
 - c) correct it
 - d) change it
- 2) In which country was the research done?
 - a) the USA
 - b) Canada
 - c) Colombia
 - d) Britain
- 3) How did a researcher feel about his research?
 - a) shocked
 - b) surprising
 - c) surprised
 - d) shocking
- 4) For how long have scientists thought air pollution doesn't harm the brain?
 - a) decades
 - b) years
 - c) months
 - d) centuries
- 5) How many other studies of this kind have there been?
 - a) dozens
 - b) one
 - c) none
 - d) eight
- 6) How many adults participated in this research?
 - a) 26
 - b) 25
 - c) 24
 - d) 22
- 7) What are the affected areas of the brain used for?
 - a) love and emotion
 - b) photos and writing
 - c) fear and hate
 - d) thinking and remembering
- 8) What did a researcher say was needed?
 - a) more research
 - b) more wires
 - c) more air
 - d) more brains
- 9) What did a researcher advise people to close?
 - a) their mind
 - b) their eyes
 - c) car windows
 - d) their mouth
- 10) What happened to the participants' brains after they breathed clean air?
 - a) they became befuddled
 - b) they returned to normal
 - c) they got smaller
 - d) they grew

ROLE PLAY

From <https://breakingnewsenglish.com/2302/230202-car-fumes.html>

Role A – Car Fumes

You think car fumes is the worst form of pollution. Tell the others three reasons why. Tell them why their forms of pollution aren't as bad. Also, tell the others which is the least damaging of these (and why): plastic, noise pollution or light pollution.

Role B – Plastic

You think plastic is the worst form of pollution. Tell the others three reasons why. Tell them why their forms of pollution aren't as bad. Also, tell the others which is the least damaging of these (and why): car fumes, noise pollution or light pollution.

Role C – Noise Pollution

You think noise pollution is the worst form of pollution. Tell the others three reasons why. Tell them why their forms of pollution aren't as bad. Also, tell the others which is the least damaging of these (and why): plastic, car fumes or light pollution.

Role D – Light Pollution

You think light pollution is the worst form of pollution. Tell the others three reasons why. Tell them why their forms of pollution aren't as bad. Also, tell the others which is the least damaging of these (and why): plastic, noise pollution or car fumes.

AFTER READING / LISTENING

From <https://breakingnewsenglish.com/2302/230202-car-fumes.html>

1. WORD SEARCH: Look in your dictionary / computer to find collocates, other meanings, information, synonyms ... for the words 'traffic' and 'pollution'.

traffic	pollution

- Share your findings with your partners.
- Make questions using the words you found.
- Ask your partner / group your questions.

2. ARTICLE QUESTIONS: Look back at the article and write down some questions you would like to ask the class about the text.

- Share your questions with other classmates / groups.
- Ask your partner / group your questions.

3. GAP FILL: In pairs / groups, compare your answers to this exercise. Check your answers. Talk about the words from the activity. Were they new, interesting, worth learning...?

4. VOCABULARY: Circle any words you do not understand. In groups, pool unknown words and use dictionaries to find their meanings.

5. TEST EACH OTHER: Look at the words below. With your partner, try to recall how they were used in the text:

<ul style="list-style-type: none">• breathing• wired• two• surprised• decades• fresh	<ul style="list-style-type: none">• 25• hours• remembering• worrying• advised• normal
---	--

CAR FUMES SURVEY

From <https://breakingnewsenglish.com/2302/230202-car-fumes.html>

Write five GOOD questions about car fumes in the table. Do this in pairs. Each student must write the questions on his / her own paper. When you have finished, interview other students. Write down their answers.

	STUDENT 1 _____	STUDENT 2 _____	STUDENT 3 _____
Q.1.			
Q.2.			
Q.3.			
Q.4.			
Q.5.			

- Now return to your original partner and share and talk about what you found out. Change partners often.
- Make mini-presentations to other groups on your findings.

CAR FUMES DISCUSSION

STUDENT A's QUESTIONS (Do not show these to student B)

1. What did you think when you read the headline?
2. What images are in your mind when you hear the word 'traffic'?
3. How much do you worry about pollution?
4. How bad is pollution where you live?
5. How worried are you about car fumes?
6. How do you feel when you breathe in car fumes?
7. Is it healthier to live in the countryside?
8. Why might car fumes change the way the brain connects?
9. How can we reduce air pollution?
10. What advice do you have for someone in a polluted city?

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CAR FUMES DISCUSSION

STUDENT B's QUESTIONS (Do not show these to student A)

11. Did you like reading this article? Why/not?
12. What do you think of when you hear the word 'pollution'?
13. What do you think about what you read?
14. What dangers are there of breathing in car fumes?
15. When do you have trouble thinking and remembering?
16. Should all vehicles be electric?
17. Do you always close your windows in city traffic?
18. What three adjectives best describe this article?
19. Where can you go to breathe cleaner, fresher air?
20. What questions would you like to ask the researchers?

DISCUSSION (Write your own questions)

STUDENT A's QUESTIONS (Do not show these to student B)

1. _____
2. _____
3. _____
4. _____
5. _____
6. _____

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DISCUSSION (Write your own questions)

STUDENT B's QUESTIONS (Do not show these to student A)

1. _____
2. _____
3. _____
4. _____
5. _____
6. _____

LANGUAGE - CLOZE

From <https://breakingnewsenglish.com/2302/230202-car-fumes.html>

Breathing in air pollution could change our brain. A new study shows that car fumes can change how our brain is (1) ____ - how parts of the brain connect with other (2) _____. The research is from the University of British Columbia in Canada. Researchers found that car fumes can change our brain's connectivity (3) ____ just two hours. A researcher, Professor Chris Carlsten, was surprised at (4) ____ he found. He said: "For many decades, scientists thought the brain may be protected from the harmful (5) ____ of air pollution." He added: "This study, which is the first of its kind in the world, provides (6) ____ evidence supporting a connection between air pollution and [thinking]."

The traffic pollution study was (7) ____ 25 adults. The researchers asked the adults to breathe in car fumes in a (8) _____. The research team took brain scans of the adults for two hours. The scans (9) ____ that networks in the brain that we use for thinking and remembering changed. There were fewer connections between the networks. Another professor said the research was (10) _____. She said: "It's concerning to see traffic pollution interrupting these networks." The researchers said there needed to (11) ____ more research to see how car fumes change our brain. They also advised people to close car windows when in traffic. The brains of the 25 people returned to normal after they (12) ____ clean air.

Put the correct words from the table below in the above article.

- | | | | | |
|-----|--------------|-----------------|----------------|----------------|
| 1. | (a) ward | (b) wired | (c) weaved | (d) weird |
| 2. | (a) ports | (b) parts | (c) points | (d) pints |
| 3. | (a) on | (b) of | (c) at | (d) in |
| 4. | (a) that | (b) what | (c) which | (d) thus |
| 5. | (a) reflects | (b) effects | (c) infects | (d) affects |
| 6. | (a) flesh | (b) flash | (c) fresh | (d) flush |
| 7. | (a) at | (b) as | (c) on | (d) to |
| 8. | (a) lavatory | (b) circulatory | (c) laboratory | (d) obligatory |
| 9. | (a) shower | (b) shows | (c) shown | (d) showed |
| 10. | (a) worrying | (b) worries | (c) worry | (d) worrier |
| 11. | (a) be | (b) get | (c) study | (d) write |
| 12. | (a) breath | (b) breather | (c) breathed | (d) breaths |

SPELLING

From <https://breakingnewsenglish.com/2302/230202-car-fumes.html>

Paragraph 1

1. trgebainh in air pollution
2. change how our brain is erdwi
3. how parts of the brain ocnentic
4. For many ceeadds
5. protected from the harmful sffecet
6. fresh nivceed

Paragraph 2

7. the tacrif pollution study
8. in a yrbtaolora
9. It's nreicngoc to see
10. tnpiurtnrige these networks
11. They also aveddsi people to close car windows
12. returned to lomanr

PUT THE TEXT BACK TOGETHER

From <https://breakingnewsenglish.com/2302/230202-car-fumes.html>

Number these lines in the correct order.

- (**1**) Breathing in air pollution could change our brain. A new study shows that car fumes can change how our brain
- () is wired - how parts of the brain connect with other parts. The research is from the University of British Columbia
- () pollution." He added: "This study, which is the first of its kind in the world, provides fresh
- () laboratory. The research team took brain scans of the adults for two hours. The scans showed that networks
- () in Canada. Researchers found that car fumes can change our brain's connectivity in just
- () see traffic pollution interrupting these networks." The researchers said there needed to be more
- () evidence supporting a connection between air pollution and [thinking]."
- () decades, scientists thought the brain may be protected from the harmful effects of air
- () in the brain that we use for thinking and remembering changed. There were fewer connections
- () The traffic pollution study was on 25 adults. The researchers asked the adults to breathe in car fumes in a
- () between the networks. Another professor said the research was worrying. She said: "It's concerning to
- () two hours. A researcher, Professor Chris Carlsten, was surprised at what he found. He said: "For many
- () research to see how car fumes change our brain. They also advised people to close car windows when in traffic. The brains
- () of the 25 people returned to normal after they breathed clean air.

PUT THE WORDS IN THE RIGHT ORDER

From <https://breakingnewsenglish.com/2302/230202-car-fumes.html>

1. brain . our air pollution change Breathing could in
2. how brain Fumes can wired . change our is
3. Change two connectivity in just brain's hours . our
4. be may protected . the brain thought Scientists
5. kind of its first the in The world .
6. The was traffic on adults . pollution 25 study
7. fumes laboratory . car in in Adults breathe a
8. for brain in use thinking . we Networks the
9. More see research to change . car fumes how
10. They also people car windows . advised to close

CIRCLE THE CORRECT WORD (20 PAIRS)

From <https://breakingnewsenglish.com/2302/230202-car-fumes.html>

Breathing in air pollution could change our *brainy / brain*. A new study shows that car fumes can change how our brain is *wired / wires* - how parts of the brain connect with other *apart / parts*. The research is from the University of British Columbia *on / in* Canada. Researchers found that car fumes can change our brain's connectivity *in / on* just two hours. A researcher, Professor Chris Carlsten, was *surprised / surprising* at what he found. He said: "For *many / much* decades, scientists thought the brain may be protected from the harmful *affects / effects* of air pollution." He added: "This study, which is the first *of / off* its kind in the world, provides fresh evidence supporting a connection *between / among* air pollution and [thinking]."

The traffic pollution *study / studying* was on 25 adults. The researchers asked the adults to *breath / breathe* in car fumes in a laboratory. The research team took brain *scan / scans* of the adults for two hours. The scans *showed / shown* that networks in the brain that we use for thinking and *remember / remembering* changed. There were fewer connections between the networks. Another professor said the research was *worried / worrying*. She said: "It's concerning to *see / seeing* traffic pollution interrupting these networks." The researchers said there *needy / needed* to be more research to see how car fumes change our brain. They also *advised / advice* people to close car windows when in traffic. The brains of the 25 people returned to *normal / normally* after they breathed clean air.

Talk about the connection between each pair of words in italics, and why the correct word is correct. Look up the definition of new words.

INSERT THE VOWELS (a, e, i, o, u)

From <https://breakingnewsenglish.com/2302/230202-car-fumes.html>

Br__th_ng _n __r p_ll_t__n c__ld ch_ng_ __r br__n. _n_w st_dy sh_ws th_t c_r f_m_s c_n ch_ng_ h_w __r br__n _s w_r_d - h_w p_rts _f th_ br__n c_nn_ct w_th _th_r p_rts. Th_ r_s__rch _s fr_m th_ _n_v_rs_ty _f Br_t_sh C_l_mb__ _n C_n_d_. R_s__rch_rs f__nd th_t c_r f_m_s c_n ch_ng_ __r br__n's c_nn_ct_v_ty _n j_st tw_ h__rs. _ r_s__rch_r, Pr_f_ss_r Chr_s C_rlst_n, w_s s_rpr_s_d _t wh_t h_ f__nd. H_ s__d: "F_r m_ny d_c_d_s, sc__nt_sts th_ght th_ br__n m_y b_ pr_t_ct_d fr_m th_ h_rmf_l _ff_cts _f __r p_ll_t__n." H_ _dd_d: "Th_s st_dy, wh_ch _s th_ f_rst _f _ts k_nd _n th_ w_rld, pr_v_d_s fr_sh _v_d_nc_ s_pp_rtn_g _ c_nn_ct__n b_tw__n __r p_ll_t__n _nd [th_nk_ng]."

Th_ tr_ff_c p_ll_t__n st_dy w_s _n 25 _d_lts. Th_ r_s__rch_rs _sk_d th_ _d_lts t_ br__th_ _n c_r f_m_s _n _ l_b_r_t_ry. Th_ r_s__rch t__m t__k br__n sc_ns _f th_ _d_lts f_r tw_ h__rs. Th_ sc_ns sh_w_d th_t n_tw_rks _n th_ br__n th_t w_ _s_ f_r th_nk_ng _nd r_m_mb_r_ng ch_ng_d. Th_r_ w_r_ f_w_r c_nn_ct__ns b_tw__n th_ n_tw_rks. _n_th_r pr_f_ss_r s__d th_ r_s__rch w_s w_rry_ng. Sh_ s__d: "_t's c_nc_rn_ng t_ s__ tr_ff_c p_ll_t__n _nt_rr_pt_ng th_s_ n_tw_rks." Th_ r_s__rch_rs s__d th_r_ n__d_d t_ b_ m_r_ r_s__rch t_ s__ h_w c_r f_m_s ch_ng_ __r br__n. Th_y _ls_ _dv_s_d p__pl_ t_ cl_s_ c_r w_nd_ws wh_n _n tr_ff_c. Th_ br__ns _f th_ 25 p__pl_ r_t_rn_d t_ n_rm_l _ft_r th_y br__th_d cl__n __r.

PUNCTUATE THE TEXT AND ADD CAPITALS

From <https://breakingnewsenglish.com/2302/230202-car-fumes.html>

breathing in air pollution could change our brain a new study shows that car fumes can change how our brain is wired how parts of the brain connect with other parts the research is from the university of british columbia in canada researchers found that car fumes can change our brains connectivity in just two hours a researcher professor chris carlsten was surprised at what he found he said for many decades scientists thought the brain may be protected from the harmful effects of air pollution he added this study which is the first of its kind in the world provides fresh evidence supporting a connection between air pollution and thinking

the traffic pollution study was on 25 adults the researchers asked the adults to breathe in car fumes in a laboratory the research team took brain scans of the adults for two hours the scans showed that networks in the brain that we use for thinking and remembering changed there were fewer connections between the networks another professor said the research was worrying she said its concerning to see traffic pollution interrupting these networks the researchers said there needed to be more research to see how car fumes change our brain they also advised people to close car windows when in traffic the brains of the 25 people returned to normal after they breathed clean air

PUT A SLASH (/) WHERE THE SPACES ARE

From <https://breakingnewsenglish.com/2302/230202-car-fumes.html>

Breathing in air pollution could change our brain. A new study shows that car fumes can change how our brain is wired - how parts of the brain connect with other parts. The research is from the University of British Columbia in Canada. Researchers found that car fumes can change our brain's connectivity in just two hours. A researcher, Professor Chris Carlsten, was surprised at what he found. He said: "For many decades, scientists thought the brain may be protected from the harmful effects of air pollution." He added: "This study, which is the first of its kind in the world, provides fresh evidence supporting a connection between air pollution and [thinking]." The traffic pollution study was on 25 adults. The researchers asked the adults to breathe in car fumes in a laboratory. The research team took brain scans of the adults for two hours. The scans showed that networks in the brain that we use for thinking and remembering changed. There were fewer connections between the networks. Another professor said the research was worrying. She said: "It's concerning to see traffic pollution interrupting these networks." The researchers said there needed to be more research to see how car fumes change our brain. They also advised people to close car windows when in traffic. The brains of the 25 people returned to normal after they breathed clean air.

HOMework

1. VOCABULARY EXTENSION: Choose several of the words from the text. Use a dictionary or Google's search field (or another search engine) to build up more associations / collocations of each word.

2. INTERNET: Search the Internet and find out more about this news story. Share what you discover with your partner(s) in the next lesson.

3. CAR FUMES: Make a poster about car fumes. Show your work to your classmates in the next lesson. Did you all have similar things?

4. ELECTRIC VEHICLES: Write a magazine article about banning all vehicles that use gasoline or diesel and having only electric hvehicles on the road. Include imaginary interviews with people who are for and against this.

Read what you wrote to your classmates in the next lesson. Write down any new words and expressions you hear from your partner(s).

5. WHAT HAPPENED NEXT? Write a newspaper article about the next stage in this news story. Read what you wrote to your classmates in the next lesson. Give each other feedback on your articles.

6. LETTER: Write a letter to an expert on car fumes. Ask him/her three questions about car fumes. Give him/her three of your ideas. Read your letter to your partner(s) in your next lesson. Your partner(s) will answer your questions.

ANSWERS

VOCABULARY (p.4)

1. c 2. e 3. d 4. a 5. f 6. g 7. b
8. k 9. h 10. i 11. n 12. m 13. j 14. l

TRUE / FALSE (p.5)

- 1 F 2 F 3 F 4 T 5 F 6 T 7 T 8 T

SYNONYM MATCH (p.5)

1. i	2. f	3. a	4. e	5. c
6. j	7. h	8. b	9. d	10. g

COMPREHENSION QUESTIONS (p.9)

1. Change it
2. Canada
3. Surprised
4. Decades
5. None
6. 25
7. Thinking and remembering
8. More research
9. Car windows
10. They returned to normal

WORDS IN THE RIGHT ORDER (p.19)

1. Breathing in air pollution could change our brain.
2. Fumes can change how our brain is wired.
3. Change our brain's connectivity in just two hours.
4. Scientists thought the brain may be protected.
5. The first of its kind in the world.
6. The traffic pollution study was on 25 adults.
7. Adults breathe in car fumes in a laboratory.
8. Networks in the brain we use for thinking.
9. More research to see how car fumes change.
10. They also advised people to close car windows.

MULTIPLE CHOICE - QUIZ (p.10)

1. d 2. b 3. c 4. a 5. c 6. b 7. d 8. a 9. c 10. b

ALL OTHER EXERCISES

Please check for yourself by looking at the Article on page 2.
(It's good for your English ;-)