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Level 6 – 14th August 2023

Microplastics found in human heart for first time

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<https://breakingnewsenglish.com//2308/230814-microplastics-in-human-heart.html>

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Please try Levels 4 and 5 (they are easier).

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THE ARTICLE

From <https://breakingnewsenglish.com//2308/230814-microplastics-in-human-heart.html>

While many of us are aware of the environmental damage done by plastic, fewer people know about the threat from the ubiquity of microplastics. Scientists first found them in our bodies more than a decade ago. Worryingly, researchers have now found them in the human heart. Scientists at the Beijing Anzhen Hospital in China collected cardiac tissue samples from 15 patients undergoing heart surgery. After analyzing the samples, they discovered tiny pieces of plastic, from a multitude of sources. They included a plastic commonly used as a shatter-proof alternative to glass, a polythene widely used in clothing and food containers, and a polyvinyl chloride used in construction.

The scientists reported finding, "tens to thousands of individual microplastic pieces in most tissue samples". Chemicals from microplastics are released into the body, potentially leading to allergic reactions, cancer, cell death, and chronic inflammation, among other complications. Scientists reckon the average person consumes around five grams of microplastics a week, or 52,000 particles a year. Microplastics are so prevalent that they make up 39 per cent of dust particles in our homes. Scientists say these tiny shards are near-impossible to remove from the body. They say it is becoming critical to limit the amount of plastic we breathe in, ingest, swallow or absorb.

Sources: <https://www.dailymail.co.uk/health/article-12384881/Microplastics-discovered-human-HEART.html>
<https://people.com/microplastics-discovered-human-heart-tissue-first-time-7642489>
<https://www.iflscience.com/thousands-of-microplastics-discovered-in-human-heart-tissue-for-first-time-70199>

WARM-UPS

1. MICROPLASTICS: Students walk around the class and talk to other students about microplastics. 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?

aware / environmental damage / threat / ubiquity / heart / tissue / plastic / clothing / scientist / allergic reaction / cancer / complication / dust / critical / breathe / swallow

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

3. END PLASTIC: Students A **strongly** believe we should end plastic this decade; Students B **strongly** believe that's not a good idea. Change partners again and talk about your conversations.

4. ALTERNATIVES: What could we use for these things instead of plastic? How much better would the alternatives be? Complete this table with your partner(s). Change partners often and share what you wrote.

| | Alternatives | How much better |
|----------------|--------------|-----------------|
| Pens | | |
| Shopping bags | | |
| Drink bottles | | |
| Plates | | |
| Containers | | |
| Car dashboards | | |

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

6. RECYCLE: Rank these with your partner. Put the most important things to recycle at the top. Change partners often and share your rankings.

- plastic bottles
- books
- computers
- furniture
- cars
- clothes
- mobile phones
- cups and plates

VOCABULARY MATCHING

Paragraph 1

- | | |
|----------------|--|
| 1. threat | a. Of one or more things available as another possibility or choice. |
| 2. ubiquity | b. A person or thing likely to cause damage or danger. |
| 3. cardiac | c. A large number of people or things. |
| 4. tissue | d. The fact of appearing everywhere or of being very common. |
| 5. multitude | e. Any of the material of which animals or plants are made. |
| 6. shatter | f. Relating to the heart. |
| 7. alternative | g. Break or cause to break suddenly and violently into pieces. |

Paragraph 2

- | | |
|------------------|--|
| 8. allergic | h. Caused by or relating to a damaging immune response by the body to a substance. |
| 9. chronic | i. Take food, drink, or another substance into the body by swallowing or absorbing it. |
| 10. inflammation | j. Of an illness persisting for a long time or constantly recurring. |
| 11. complication | k. A piece of broken ceramic, plastic metal, glass, or rock, usually having sharp edges. |
| 12. prevalent | l. A localized physical condition in which part of the body becomes reddened, swollen, hot, and often painful, especially as a reaction to injury or infection |
| 13. shard | m. A secondary disease or condition aggravating an already existing one. |
| 14. ingest | n. Widespread in a particular area or at a particular time. |

BEFORE READING / LISTENING

From <https://breakingnewsenglish.com//2308/230814-microplastics-in-human-heart.html>

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

1. The article says most of us know about the harm microplastics do. **T / F**
2. Microplastics were first found in our bodies in the 1970s. **T / F**
3. Scientists found microplastics in the hearts of heart surgery patients. **T / F**
4. Scientists found plastics from construction materials in a human heart. **T / F**
5. There were tens of thousands of microplastics in the heart tissue. **T / F**
6. Microplastics can cause allergic reactions. **T / F**
7. An average person gets 52,000 bits of microplastic a year in their body. **T / F**
8. It is relatively easy to remove microplastics from our bodies. **T / F**

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

- | | |
|-------------------------|-------------------|
| 1. aware | a. eats or drinks |
| 2. ubiquity | b. heart |
| 3. cardiac | c. building |
| 4. alternative | d. problems |
| 5. construction | e. omnipresence |
| 6. individual | f. commonplace |
| 7. complications | g. substitute |
| 8. consumes | h. vital |
| 9. prevalent | i. single |
| 10. critical | j. conscious |

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

- | | |
|--|------------------------------|
| 1. the environmental damage | a. impossible to remove |
| 2. the threat from the ubiquity | b. samples |
| 3. cardiac tissue | c. in construction |
| 4. a shatter-proof alternative | d. reactions |
| 5. polyvinyl chloride used | e. ingest, swallow or absorb |
| 6. allergic | f. done by plastic |
| 7. average person consumes | g. particles |
| 8. dust | h. to glass |
| 9. these tiny shards are near- | i. around five grams |
| 10. the amount of plastic we breathe in, | j. of microplastics |

GAP FILL

From <https://breakingnewsenglish.com//2308/230814-microplastics-in-human-heart.html>

While many of us are (1) _____ of the environmental damage done by plastic, fewer people know about the (2) _____ from the ubiquity of microplastics. Scientists first found them in our bodies more than a (3) _____ ago. Worryingly, researchers have now found them in the human heart. Scientists at the Beijing Anzhen Hospital in China collected cardiac (4) _____ samples from 15 patients undergoing heart surgery. After analyzing the samples, they discovered (5) _____ pieces of plastic, from a multitude of sources. They included a plastic commonly used as a (6) _____ -proof alternative to glass, a polythene (7) _____ used in clothing and food containers, and a polyvinyl chloride used in (8) _____.

threat
shatter
tissue
construction
aware
widely
decade
tiny

The scientists reported finding, "tens to thousands of (9) _____ microplastic pieces in most tissue samples". Chemicals from microplastics are released into the body, (10) _____ leading to allergic reactions, cancer, cell death, and (11) _____ inflammation, among other complications. Scientists (12) _____ the average person consumes around five grams of microplastics a week, or 52,000 particles a year. Microplastics are so (13) _____ that they make up 39 per cent of dust particles in our homes. Scientists say these tiny (14) _____ are near-impossible to remove from the body. They say it is becoming (15) _____ to limit the amount of plastic we breathe in, ingest, (16) _____ or absorb.

reckon
potentially
shards
chronic
prevalent
swallow
individual
critical

LISTENING – Guess the answers. Listen to check.

From <https://breakingnewsenglish.com//2308/230814-microplastics-in-human-heart.html>

- 1) While many of us are aware of the environmental damage _____
 - a. done by plasticity
 - b. done by plasticine
 - c. done by plastic
 - d. done by plasticize
- 2) fewer people know about the threat from the _____
 - a. ubiquity off microplastics
 - b. ubiquity of microplastics
 - c. ubiquity oft microplastics
 - d. ubiquity over microplastics
- 3) Scientists first found them in our bodies more than _____
 - a. add deck aid ago
 - b. a deck add ago
 - c. a decade ago
 - d. add decade ago
- 4) Scientists at the Beijing Anzhen Hospital in China collected _____
 - a. cardiac tissue samples
 - b. cardiac tissue simples
 - c. cardiac tissue sump pulls
 - d. cardiac tissue same pulls
- 5) They included a plastic commonly used as a shatter-proof _____
 - a. alternatively to glass
 - b. alternate to glass
 - c. alter native to glass
 - d. alternative to glass
- 6) The scientists reported finding, "tens to thousands of _____"
 - a. individually microplastic pieces
 - b. individualize microplastic pieces
 - c. individualism microplastic pieces
 - d. individual microplastic pieces
- 7) Chemicals from microplastics are released into the body, potentially leading _____
 - a. to allergy reactions
 - b. to allergic reactions
 - c. to allergen reactions
 - d. to allergically reactions
- 8) Microplastics are so prevalent that they make up 39 per cent _____
 - a. of dusty particles
 - b. of dusted particles
 - c. of dust particles
 - d. of dusts particles
- 9) They say it is becoming critical to _____
 - a. limitation the amount
 - b. limits the amount
 - c. delimit the amount
 - d. limit the amount
- 10) plastic we breathe in, ingest, _____
 - a. swallow or abs orb
 - b. swallow or abs sorbet
 - c. swallow or absorb
 - d. swallow or ab sorbet

LISTENING – Listen and fill in the gaps

From <https://breakingnewsenglish.com//2308/230814-microplastics-in-human-heart.html>

While many of us (1) _____ the environmental damage done by plastic, fewer people know about (2) _____ the ubiquity of microplastics. Scientists first found them in our bodies more than (3) _____. Worryingly, researchers have now found them in the human heart. Scientists at the Beijing Anzhen Hospital in China collected (4) _____ from 15 patients undergoing heart surgery. After analyzing the samples, they discovered tiny pieces of plastic, from a (5) _____. They included a plastic commonly used as a shatter-proof alternative to glass, a polythene (6) _____ clothing and food containers, and a polyvinyl chloride used in construction.

The scientists reported finding, "tens to thousands of individual microplastic (7) _____ tissue samples". Chemicals from microplastics are released into the body, potentially (8) _____ reactions, cancer, cell death, and chronic inflammation, among other complications. Scientists (9) _____ person consumes around five grams of microplastics a week, or 52,000 particles a year. Microplastics are (10) _____ they make up 39 per cent of (11) _____ our homes. Scientists say these tiny shards are near-impossible to remove from the body. They say it is becoming critical to limit the amount of plastic (12) _____, ingest, swallow or absorb.

COMPREHENSION QUESTIONS

From <https://breakingnewsenglish.com//2308/230814-microplastics-in-human-heart.html>

1. What do fewer of us know about the threat of?
2. When were microplastics first found in our bodies?
3. Where was the research conducted?
4. What kind of operation were 15 patients having?
5. What was a polyvinyl chloride used in?
6. How many microplastics were found in the human heart tissue?
7. What kind of inflammation can chemicals from microplastics cause?
8. How many bits of microplastic does the average person consume a year?
9. How much of the dust in our homes are made up of microplastics?
10. How important does the article say it is to limit ingested microplastics?

MULTIPLE CHOICE - QUIZ

From <https://breakingnewsenglish.com//2308/230814-microplastics-in-human-heart.html>

- 1) What do fewer of us know about the threat of?
 - a) climate change
 - b) health problems
 - c) the scarcity of microplastics
 - d) the ubiquity of microplastics
- 2) When were microplastics first found in our bodies?
 - a) last year
 - b) over 10 years ago
 - c) in 2018
 - d) a few years ago
- 3) Where was the research conducted?
 - a) South Korea
 - b) Japan
 - c) China
 - d) Singapore
- 4) What kind of operation were 15 patients having?
 - a) heart surgery
 - b) a hernia operation
 - c) a kidney transplant
 - d) broken bones
- 5) What was a polyvinyl chloride used in?
 - a) clothing
 - b) glass
 - c) construction
 - d) food containers
- 6) How many microplastics were found in the human heart tissue?
 - a) tens of thousands
 - b) from tens to thousands
 - c) fifteen thousand
 - d) hundreds of thousands
- 7) What kind of inflammation can chemicals from microplastics cause?
 - a) short-term inflammation
 - b) mild inflammation
 - c) sore inflammation
 - d) chronic inflammation
- 8) How many bits of microplastic does the average person consume a year?
 - a) 52,000 particles
 - b) 50,000 particles
 - c) 58,000 particles
 - d) 54,000 particles
- 9) How much of the dust in our homes are made up of microplastics?
 - a) 32%
 - b) 33%
 - c) 39%
 - d) 38%
- 10) How important does the article say it is to limit ingested microplastics?
 - a) It's beyond urgent.
 - b) It's becoming critical.
 - c) It's of little importance.
 - d) It's quite important.

ROLE PLAY

From <https://breakingnewsenglish.com//2308/230814-microplastics-in-human-heart.html>

Role A – Plastic Bottles

You think plastic bottles are the most important things to recycle. Tell the others three reasons why. Tell them what problems there are with recycling their things. Also, tell the others which of these is the least important to recycle (and why): computers, clothes or cars.

Role B – Computers

You think computers are the most important things to recycle. Tell the others three reasons why. Tell them what problems there are with recycling their things. Also, tell the others which of these is the least important to recycle (and why): plastic bottles, clothes or cars.

Role C – Clothes

You think clothes are the most important things to recycle. Tell the others three reasons why. Tell them what problems there are with recycling their things. Also, tell the others which of these is the least important to recycle (and why): computers, plastic bottles or cars.

Role D – Cars

You think cars are the most important things to recycle. Tell the others three reasons why. Tell them what problems there are with recycling their things. Also, tell the others which of these is the least important to recycle (and why): computers, clothes or plastic bottles.

AFTER READING / LISTENING

From <https://breakingnewsenglish.com//2308/230814-microplastics-in-human-heart.html>

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

| | |
|----------------|--------------|
| plastic | heart |
|----------------|--------------|

- 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">• aware• decade• collected• patients• tiny• alternative | <ul style="list-style-type: none">• tens• leading• average• week• homes• limit |
|--|---|

MICROPLASTICS SURVEY

From <https://breakingnewsenglish.com//2308/230814-microplastics-in-human-heart.html>

Write five GOOD questions about microplastics 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.

MICROPLASTICS 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 'microplastics'?
3. What damage do microplastics do?
4. How can we reduce the amount of microplastics?
5. What damage could microplastics do to our body?
6. How can we live without plastic?
7. How much plastic pollution do you see every day?
8. Would you switch to alternatives to plastic?
9. How do you feel about microplastics being in your body?
10. What should governments do about microplastics?

Microplastics found in human heart for first time – 14th August 2023
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MICROPLASTICS 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 'heart'?
13. What do you think about what you read?
14. Would you move house to live somewhere with fewer microplastics?
15. Do you suffer from any allergies?
16. What do you think of your body consuming 52,000 bits of microplastic?
17. Should we dust our homes more to remove microplastics?
18. What will things be like in the future?
19. What do you think of microplastics?
20. What questions would you like to ask the scientists?

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//2308/230814-microplastics-in-human-heart.html>

While many of (1) _____ are aware of the environmental damage done by plastic, fewer people know about the (2) _____ from the ubiquity of microplastics. Scientists first found them in our bodies more than (3) _____ decade ago. Worryingly, researchers have now found them in the human heart. Scientists at the Beijing Anzhen Hospital in China collected cardiac tissue samples from 15 patients (4) _____ heart surgery. After analyzing the samples, they discovered (5) _____ pieces of plastic, from a multitude of sources. They included a plastic commonly used as a shatter-proof alternative (6) _____ glass, a polythene widely used in clothing and food containers, and a polyvinyl chloride used in construction.

The scientists reported finding, "tens (7) _____ thousands of individual microplastic pieces in most tissue samples". Chemicals from microplastics are released into the body, (8) _____ leading to allergic reactions, cancer, cell death, and chronic inflammation, among other complications. Scientists (9) _____ the average person consumes around five grams of microplastics a week, or 52,000 particles a year. Microplastics are so prevalent that they make (10) _____ 39 per cent of dust particles in our homes. Scientists say these tiny shards are (11) _____-impossible to remove from the body. They say it is becoming (12) _____ to limit the amount of plastic we breathe in, ingest, swallow or absorb.

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

- | | | | | |
|-----|---------------|----------------|-----------------|---------------|
| 1. | (a) them | (b) us | (c) people | (d) doctors |
| 2. | (a) treat | (b) threat | (c) threaten | (d) throat |
| 3. | (a) the | (b) several | (c) that | (d) a |
| 4. | (a) ongoing | (b) undergoing | (c) outgoing | (d) tangoing |
| 5. | (a) tinny | (b) tiny | (c) tinted | (d) tin |
| 6. | (a) of | (b) from | (c) to | (d) on |
| 7. | (a) on | (b) as | (c) to | (d) in |
| 8. | (a) potential | (b) potent | (c) potentially | (d) portent |
| 9. | (a) harken | (b) wrecking | (c) beckon | (d) reckon |
| 10. | (a) up | (b) down | (c) over | (d) through |
| 11. | (a) near | (b) adjacent | (c) close | (d) far |
| 12. | (a) critique | (b) critic | (c) critical | (d) criticize |

SPELLING

From <https://breakingnewsenglish.com//2308/230814-microplastics-in-human-heart.html>

Paragraph 1

1. the uqbtiyui of microplastics
2. aardcci tissue samples
3. from a eulttmudi of sources
4. a shatter-proof irnatlvetea to glass
5. widely used in clothing and food saronnteci
6. polyvinyl chloride used in coontuncstri

Paragraph 2

7. ellgrcia reactions
8. iccrnoh inflammation
9. Microplastics are so lepavenrt
10. dust scletpair
11. becoming lirticca to limit the amount
12. plastic we breathe in, ingest, swallow or barobs

PUT THE TEXT BACK TOGETHER

From <https://breakingnewsenglish.com//2308/230814-microplastics-in-human-heart.html>

Number these lines in the correct order.

- () from the ubiquity of microplastics. Scientists first found them in our bodies more than a decade
- (**1**) While many of us are aware of the environmental damage done by plastic, fewer people know about the threat
- () ago. Worryingly, researchers have now found them in the human heart. Scientists at the Beijing Anzhen Hospital in China
- () to allergic reactions, cancer, cell death, and chronic inflammation, among other complications. Scientists reckon the average
- () homes. Scientists say these tiny shards are near-impossible to remove from the body. They say it is becoming critical
- () samples". Chemicals from microplastics are released into the body, potentially leading
- () to glass, a polythene widely used in clothing and food containers, and a polyvinyl chloride used in construction.
- () a year. Microplastics are so prevalent that they make up 39 per cent of dust particles in our
- () collected cardiac tissue samples from 15 patients undergoing heart surgery. After analyzing
- () the samples, they discovered tiny pieces of plastic, from a multitude
- () person consumes around five grams of microplastics a week, or 52,000 particles
- () The scientists reported finding, "tens to thousands of individual microplastic pieces in most tissue
- () of sources. They included a plastic commonly used as a shatter-proof alternative
- () to limit the amount of plastic we breathe in, ingest, swallow or absorb.

PUT THE WORDS IN THE RIGHT ORDER

From <https://breakingnewsenglish.com//2308/230814-microplastics-in-human-heart.html>

1. damage . of environmental aware of Many us are
2. Researchers the have found them in now heart .
3. from Tissue patients 15 samples heart undergoing surgery .
4. as used Commonly alternative shatter-proof to a glass .
5. containers . food in used A polythene widely
6. microplastics Chemicals the into released body . from are
7. consumes person Scientists grams . the reckon five average
8. dust They up per make particles . of cent 39
9. from to remove are body . the near-impossible They
10. the becoming critical is It to limit amount .

CIRCLE THE CORRECT WORD (20 PAIRS)

From <https://breakingnewsenglish.com//2308/230814-microplastics-in-human-heart.html>

While many of us are *beware* / *aware* of the environmental damage done by plastic, fewer people know about the *threat* / *treat* from the *ubiquity* / *ubiquitous* of microplastics. Scientists first found them in our bodies more than *the* / *a* decade ago. Worryingly, researchers have now found them *in* / *at* the human heart. Scientists at the Beijing Anzhen Hospital in China collected cardiac tissue *sample* / *samples* from 15 patients *ongoing* / *undergoing* heart surgery. After analyzing the samples, they discovered *tiny* / *tinny* pieces of plastic, from a multitude of sources. They included a plastic commonly used *as* / *has* a shatter-proof alternative to glass, a polythene *widen* / *widely* used in clothing and food containers, and a polyvinyl chloride used in construction.

The scientists reported *funding* / *finding*, "tens to thousands of individual microplastic pieces *in* / *at* most tissue samples". Chemicals from microplastics are released *into* / *onto* the body, potentially leading *on* / *to* allergic reactions, cancer, cell death, and chronic inflammation, among *others* / *other* complications. Scientists reckon the average person consumes around five grams of microplastics *a* / *in* week, or 52,000 particles a year. Microplastics are so prevalent that they make *up* / *down* 39 per cent of dust particles in our homes. Scientists say *these* / *them* tiny shards are near-impossible to remove from the body. They say *they* / *it* is becoming critical to limit the amount of plastic we *breathe in* / *breath*, in ingest, swallow or absorb.

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/2308/230814-microplastics-in-human-heart.html>

Wh_l_ m_ny _f _s _r_ _w_r_ _f th_ _nv_r_nm_nt_l
d_m_g_ d_n_ by pl_st_c, f_w_r p__pl_ kn_w _b__t th_
thr__t fr_m th_ _b_q__ty _f m_cr_pl_st_cs. Sc__nt_sts
f_rst f__nd th_m _n __r b_d__s m_r_ th_n _ d_c_d_
g. W_rry_ngly, r_s__rch_rs h_v_ n_w f__nd th_m _n
th_ h_m_n h__rt. Sc__nt_sts _t th_ B__j_ng _nzh_n
H_sp_t_l _n Ch_n_ c_ll_ct_d c_rd__c t_ss__ s_mpl_s
fr_m 15 p_t__nts _nd_rg__ng h__rt s_rg_ry. _ft_r
_n_lyz_ng th_ s_mpl_s, th_y d_sc_v_r_d t_ny p__c_s _f
pl_st_c, fr_m _ m_lt_t_d_ _f s__rc_s. Th_y _ncl_d_d _
pl_st_c c_mm_nly _s_d _s _ sh_tt_r-pr__f _lt_rn_t_v_ t_
gl_ss, _ p_lyth_n_ w_d_ly _s_d _n cl_th_ng _nd f__d
c_nt__n_rs, _nd _ p_lyv_nyl chl_r_d_ _s_d _n
c_nstr_ct__n.

Th_ sc__nt_sts r_p_r_t_d f_nd_ng, "t_ns t_ th__s_nds _f
_nd_v_d__l m_cr_pl_st_c p__c_s _n m_st t_ss__
s_mpl_s". Ch_m_c_ls fr_m m_cr_pl_st_cs _r_ r_l__s_d
nt th_ b_dy, p_t_nt__lly l__d_ng t_ _ll_rg_c
r__ct__ns, c_nc_r, c_ll d__th, _nd chr_n_c
_nfl_mm_t__n, _m_ng _th_r c_mpl_c_t__ns. Sc__nt_sts
r_ck_n th_ _v_r_g_ p_rs_n c_ns_m_s _r__nd f_v_ gr_ms
_f m_cr_pl_st_cs _ w__k, _r 52,000 p_rt_cl_s _ y__r.
M_cr_pl_st_cs _r_ s_ pr_v_l_nt th_t th_y m_k_ _p 39
p_r c_nt _f d_st p_rt_cl_s _n __r h_m_s. Sc__nt_sts
s_y th_s_ t_ny sh_rds _r_ n__r -mp_ss_bl_ t_ r_m_v_
fr_m th_ b_dy. Th_y s_y _t _s b_c_m_ng cr_t_c_l t_
l_m_t th_ _m__nt _f pl_st_c w_ br__th_ _n, _ng_st,
sw_ll_w _r _bs_rb.

PUNCTUATE THE TEXT AND ADD CAPITALS

From <https://breakingnewsenglish.com//2308/230814-microplastics-in-human-heart.html>

while many of us are aware of the environmental damage done by plastic fewer people know about the threat from the ubiquity of microplastics scientists first found them in our bodies more than a decade ago worryingly researchers have now found them in the human heart scientists at the beijing anzhen hospital in china collected cardiac tissue samples from 15 patients undergoing heart surgery after analyzing the samples they discovered tiny pieces of plastic from a multitude of sources they included a plastic commonly used as a shatterproof alternative to glass a polythene widely used in clothing and food containers and a polyvinyl chloride used in construction

the scientists reported finding tens to thousands of individual microplastic pieces in most tissue samples chemicals from microplastics are released into the body potentially leading to allergic reactions cancer cell death and chronic inflammation among other complications scientists reckon the average person consumes around five grams of microplastics a week or 52000 particles a year microplastics are so prevalent that they make up 39 per cent of dust particles in our homes scientists say these tiny shards are near-impossible to remove from the body they say it is becoming critical to limit the amount of plastic we breathe in ingest swallow or absorb

PUT A SLASH (/) WHERE THE SPACES ARE

From <https://breakingnewsenglish.com//2308/230814-microplastics-in-human-heart.html>

While many of us are aware of the environmental damage done by plastic, fewer people know about the threat from the ubiquity of microplastics. Scientists first found them in our bodies more than a decade ago. Worryingly, researchers have now found them in the human heart. Scientists at the Beijing Anzhen Hospital in China collected cardiac tissue samples from 15 patients undergoing heart surgery. After analyzing the samples, they discovered tiny pieces of plastic, from a multitude of sources. They include a plastic commonly used as a shatter-proof alternative to glass, a polyethylene widely used in clothing and food containers, and a polyvinyl chloride used in construction. The scientists reported finding, "ten to thousands of individual microplastic pieces in most tissue samples". Chemicals from microplastics are released into the body, potentially leading to allergic reactions, cancer, cell death, and chronic inflammation, among other complications. Scientists reckon the average person consumes around five grams of microplastics a week, or 52,000 particles a year. Microplastics are so prevalent that they make up 39 percent of dust particles in our homes. Scientists say these tiny shards are near-impossible to remove from the body. They say it is becoming critical to limit the amount of plastic we breathe in, ingest, swallow or absorb.

FREE WRITING

From <https://breakingnewsenglish.com/2308/230814-microplastics-in-human-heart.html>

Write about **microplastics** for 10 minutes. Comment on your partner’s paper.

Lined writing area consisting of 20 horizontal lines.

ACADEMIC WRITING

From <https://breakingnewsenglish.com/2308/230814-microplastics-in-human-heart.html>

We need to stop using plastic immediately. Discuss.

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. MICROPLASTICS: Make a poster about microplastics. Show your work to your classmates in the next lesson. Did you all have similar things?

4. END PLASTIC: Write a magazine article about ending the use of plastic. 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 microplastics. Ask him/her three questions about them. Give him/her three of your ideas on how to reduce plastic use. Read your letter to your partner(s) in your next lesson. Your partner(s) will answer your questions.

ANSWERS

VOCABULARY (p.4)

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

TRUE / FALSE (p.5)

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

SYNONYM MATCH (p.5)

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

COMPREHENSION QUESTIONS (p.9)

1. The ubiquity of microplastics
2. Over a decade ago
3. China
4. Heart surgery
5. Construction
6. From tens to thousands
7. Chronic inflammation
8. 52,000 particles
9. 39%
10. It's becoming critical.

WORDS IN THE RIGHT ORDER (p.19)

1. Many of us are aware of environmental damage.
2. Researchers have now found them in the heart.
3. Tissue samples from 15 patients undergoing heart surgery.
4. Commonly used as a shatter-proof alternative to glass.
5. A polythene widely used in food containers.
6. Chemicals from microplastics are released into the body.
7. Scientists reckon the average person consumes five grams.
8. They make up 39 per cent of dust particles.
9. They are near-impossible to remove from the body.
10. It is becoming critical to limit the amount.

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 ;-)