

# Boys and girls react differently to stress

A study from Stanford University in the USA suggests that very stressful events affect the brains of boys and girls in different ways. Researchers say that girls suffer more after traumatic events and are more likely to develop post-traumatic stress disorder (PTSD). They also say that because of this, girls and boys should be treated differently by doctors during the recovery process from PTSD. Lead researcher Dr Megan Klabunde said: "It is important that people who work with traumatised youth consider the sex differences. Our findings suggest it is possible that boys and girls could exhibit different trauma symptoms and that they might benefit from different approaches to treatment."

The research focused on a part of the brain that deals with emotions and empathy, called the insula. The smaller the insula, the more likely it is that someone will suffer from PTSD. Researchers discovered that the insula was particularly small in girls who had gone through a traumatic event. It was larger than usual in boys who had experienced a distressing, shocking or frightening event. Post-traumatic stress disorder is a mental disorder that can develop after traumatic events, such as sexual assault, warfare, traffic collisions, or threats on a person's life. Symptoms may include disturbing or suicidal thoughts, nightmares related to the events, and alterations to how a person thinks and feels.



## BEFORE READING

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

- a. The research was from Oxford University in the UK. **T / F**
- b. The research says girls are more likely to suffer from PTSD. **T / F**
- c. Boys and girls should be treated differently for stress. **T / F**
- d. Boys and girls show different symptoms when stressed. **T / F**
- e. The research focused on a part of the brain that deals with trauma. **T / F**
- f. A part of the brain called the insula was bigger in girls. **T / F**
- g. PTSD is a physical disorder. **T / F**
- h. Symptoms of PTSD include having suicidal thoughts. **T / F**

**2 SYNONYM MATCH:** Match the following synonyms. The words in bold are from the news article.

|                 |               |
|-----------------|---------------|
| 1. study        | a. disturbing |
| 2. affects      | b. healing    |
| 3. likely       | c. report     |
| 4. recovery     | d. crashes    |
| 5. treatment    | e. probable   |
| 6. deals with   | f. changes    |
| 7. traumatic    | g. therapy    |
| 8. develop      | h. influences |
| 9. collisions   | i. evolve     |
| 10. alterations | j. handles    |

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

|   |                        |
|---|------------------------|
| 1. girls suffer more after              | a. thoughts            |
| 2. during the recovery                  | b. symptoms            |
| 3. people who work with                 | c. collisions          |
| 4. girls could exhibit different trauma | d. with emotions       |
| 5. benefit from different approaches    | e. process             |
| 6. the brain that deals                 | f. traumatic events    |
| 7. sexual                               | g. how a person thinks |
| 8. traffic                              | h. to treatment        |
| 9. suicidal                             | i. assault             |
| 10. alterations to                      | j. traumatised youth   |

## COMPREHENSION QUESTIONS

- Which university carried out the research from this article?
- What do stressful events affect differently in boys and girls?
- How should girls and boys who suffer from PTSD be treated?
- Who should consider the sex differences between boys and girls?
- What could traumatised boys and girls benefit from?
- What does the part of the brain called the insula deal with?
- How big was the insula in traumatised girls?
- What did the article say PTSD was?
- What kind of collisions were mentioned in the article?
- What kind of thoughts are included in the symptoms of PTSD?

## MULTIPLE CHOICE - QUIZ

- Which university carried out the research from this article?  
a) Oxford b) Stanford c) Sorbonne d) Tokyo
- What do stressful events affect differently in boys and girls?  
a) their stomachs b) chemicals  
c) their eyes d) their brains
- How should girls and boys who suffer from PTSD be treated?  
a) quickly b) carefully c) differently d) the same
- Who should consider the sex differences between boys and girls?  
a) those who work with traumatised youth  
b) all of us c) doctors d) boys
- What could traumatised boys and girls benefit from?  
a) time b) different approaches to treatment  
c) fruit d) symptoms
- What does the part of the brain called the insula deal with?  
a) emotions and empathy b) trauma and symptoms  
c) fear and stress d) the heart and soul
- How big was the insula in traumatised girls?  
a) over-sized b) the size of a peanut  
c) particularly small d) average size
- What did the article say PTSD was?  
a) a mental disorder b) the unknown  
c) difficult d) scary
- What kind of collisions were mentioned in the article?  
a) cultures b) tectonic plates  
c) planetary d) traffic
- What kind of thoughts are included in the symptoms of PTSD?  
a) nice thoughts b) original thoughts  
c) suicidal thoughts d) genuine thoughts

Please find the answer key of today's EIS page published mistakenly on last monday (3/7/2017). Sorry for the inconvenience.

## ANSWER KEY OF EIS PAGE ACTIVITIES (DATED JUNE 19, 2017)

ALL OTHER EXERCISES  
Please check for yourself by looking at the Article on page 19/06/17. (It's good for your English :-)

## WARM-UPS

**1. STRESS:** Students walk around the class and talk to other students about stress. 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?

study / stressful / suffer / traumatic / recovery / differences / symptoms / treatment / brain / emotions / empathy / frightening / mental / assault / warfare / suicidal

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

**3. USEFUL:** Students A strongly believe stress has a useful function; Students B strongly believe it doesn't. Change partners again and talk about your conversations.

**4. STRESSFUL THINGS:** How stressful are these things and why? How can we deal with them? Complete this table with your partner(s). Change partners often and share what you wrote.

|               | How stressful and why? | How we can deal with them |
|---------------|------------------------|---------------------------|
| Exams         |                        |                           |
| Family fights |                        |                           |
| Money worries |                        |                           |
| Job           |                        |                           |
| Social media  |                        |                           |
| Marriage      |                        |                           |

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

**6. STRESSES:** Rank these with your partner. Put the best stresses at the top. Change partners often and share your rankings.

|                 |                |
|-----------------|----------------|
| • exams         | • dating       |
| • traffic jams  | • social media |
| • family fights | • school / job |
| • money worries | • the future   |

## GAP FILL

A study from Stanford University in the USA (1) \_\_\_\_\_ that very stressful events affect the brains of boys and girls in different ways. Researchers say that girls (2) \_\_\_\_\_ more after traumatic events and are more (3) \_\_\_\_\_ to develop post-traumatic stress disorder (PTSD). They also say that because of this, girls and boys should be (4) \_\_\_\_\_ differently by doctors during the recovery (5) \_\_\_\_\_ from PTSD. Lead researcher Dr Megan Klabunde said: "It is important that people who work with traumatised youth consider the sex (6) \_\_\_\_\_". Our findings suggest it is possible that boys and girls could (7) \_\_\_\_\_ different trauma symptoms and that they might benefit from different (8) \_\_\_\_\_ to treatment."

likely  
process  
suggests  
exhibit  
differences  
treated  
approaches  
suffer

The research focused on a (9) \_\_\_\_\_ of the brain that deals with emotions and empathy, called the insula. The (10) \_\_\_\_\_ the insula, the more likely it is that someone will suffer from PTSD. Researchers discovered that the insula was (11) \_\_\_\_\_ small in girls who had gone (12) \_\_\_\_\_ a traumatic event. It was larger than usual in boys who had experienced a (13) \_\_\_\_\_, shocking or frightening event. Post-traumatic stress disorder is a mental disorder that can (14) \_\_\_\_\_ after traumatic events, such as sexual assault, warfare, traffic collisions, or (15) \_\_\_\_\_ on a person's life. Symptoms may include disturbing or suicidal (16) \_\_\_\_\_, nightmares related to the events, and alterations to how a person thinks and feels.

smaller  
distressing  
part  
threats  
through  
thoughts  
particularly  
develop



## Role A - Exams

You think worrying about exams is the most stressful thing. Tell the others three reasons why. Tell them why their things aren't as stressful. Also, tell the others which is the least stressful of these (and why): traffic jams, money or the future.

## Role B - Traffic Jams

You think being stuck in traffic is the most stressful thing. Tell the others three reasons why. Tell them why their things aren't as stressful. Also, tell the others which is the least stressful of these (and why): exams, money or the future.

## Role C - Money

You think money is the most stressful thing. Tell the others three reasons why. Tell them why their things aren't as stressful. Also, tell the others which is the least stressful of these (and why): traffic jams, exams or the future.

## Role D - The Future

You think the future is the most stressful thing. Tell the others three reasons why. Tell them why their things aren't as stressful. Also, tell the others which is the least stressful of these (and why): traffic jams, money or exams.