

B. Tomatoes & Lycopene

You may have heard that tomatoes and processed tomato products like tomato sauce and canned tomatoes protect against some types of cancer. The cancer-preventing properties of tomato products have been attributed to lycopene. It is a bright red pigment found in tomatoes and other red fruits and is the cause of their red color. Unlike other fruits and vegetables, where nutritional content such as vitamin C is diminished upon cooking, processing of tomatoes increases the concentration of lycopene. Lycopene in tomato paste is four times more than in fresh tomatoes. This is because lycopene is insoluble in water and is tightly bound to vegetable fiber. Thus, processed tomato products such as pasteurized tomato juice, so up, sauce, and ketchup contain the highest concentrations of lycopene. Cooking and crushing tomatoes as in the canning process and serving in oil-rich dishes such as spaghetti sauce or pizza greatly increase assimilation from the digestive tract into the bloodstream. Lycopene is a fat-soluble substance, so the oil is said to help absorption to a great extent.

Based on your reading and understanding of the passage answer the following questions.

- I. Fill in the blanks with the appropriate words from your understanding of the passage.

- ✓ 1. Lycopene has been attributed to cancer-preventing properties of tomato products.
- ✓ 2. Lycopene is a fat-soluble substance.
- ✓ 3. Lycopene is known to be bound to vegetable fibre.
- ✓ 4. Processed tomato products contain the highest concentration of lycopene.
- ✓ 5. Lycopene is a bright red pigment found in tomatoes and other red fruits.

5/5

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7/11/23

- II. Choose the right answer among the options given.

- ✓ 1. According to the passage, it is true that lycopene
 - a. Can only be found in processed tomato products.
 - b. Loses its cancer-preventing property when the tomato is processed. ✗
 - c. Is a pigment which is quickly solved in water. ✗
 - ✓ d. Is absorbed by the body more easily when accompanied by oil.
- ✓ 2. It can be understood from the passage that as far as lycopene intake is considered
 - a. Lycopene hardly offers any protection against diseases such as cancer. ✗
 - ✓ b. There is a correlation between the lycopene consumption and the prevention of some cancer types.

5) Lycopene is a bright-red pigment and it is found in fresh tomatoes as well as other red fruits, and processed tomato products.

- c. There have been no reported side effects or toxicity associated with lycopene intake \times
- d. Tomato products contain high concentrations of lycopene and fat.

\times 3. It can be understood from the passage that (a)

- a. Lycopene is what gives fruits their colour
- b. Unlike the popular belief, fat doesn't help the absorption of lycopene in the body \times
- c. Processed tomato products include the lowest concentrations of lycopene \times
- ☒ d. There are several health problems that may result from consuming a great deal of lycopene

\checkmark 4. Lycopene is a

- a. Water soluble substance
- ☒ b. Fat soluble substance
- c. Indigestible substance
- d. Insoluble when mixed with anything

\checkmark 5. Through processing of tomatoes

- a. Lycopene concentration gets annihilated
- b. Lycopene concentration gets decreased
- ☒ c. Lycopene concentration gets increased
- d. Causes a few kinds of diseases

III. Answer the following questions in one or two sentences

- \checkmark 1. What is the substance that is known to be present in tomatoes and processed tomato products?
- \checkmark 2. What does processing of tomatoes do to lycopene?
- \checkmark 3. Why is lycopene said to help oil absorption to a great extent?
- \checkmark 4. Lycopene in tomato paste is four times more than in fresh tomatoes. Say Yes or No, if so, why?
- \checkmark 5. What kind of a pigment is lycopene and where else is it found other than in fresh tomatoes?

- 1) A fat soluble substance, Lycopene, is known to be present in tomatoes and processed tomato products.
- 2) Processing of tomatoes highly increase the concentration of Lycopene.
- 3) As Lycopene is a fat soluble substance, it is said that Lycopene help oil absorption to a greater extent.
- 4) Yes, Lycopene in tomato paste is four times more than in fresh tomatoes because it is water insoluble and tightly bound to vegetable fibre.

Reading Comprehension Exercises

A. Autism

Autism is a brain development disorder that impairs social interaction and communication and causes restricted and repetitive behavior, all starting before a child is three years old. The genetics of autism are complex and it is generally unclear which genes are responsible for it. Autism affects many parts of the brain but how this occurs is also poorly understood. Autism is strongly associated with agents that cause birth defects. Other proposed causes, such as childhood vaccines, are controversial and the vaccine hypotheses lack convincing scientific evidence. The number of people known to have autism has increased dramatically since the 1980s. Parents usually notice signs in the first two years of their child's life. Early behavioral cognitive intervention can help children gain self-care, social and communication skills but there is no cure for it. Few children with autism live independently after reaching adulthood, but some become successful and an autistic culture has developed, with some seeking a cure and others believing that autism is a condition rather than a disorder.

From your reading of the above passage answer the following questions

I. Choose the correct answer

✓ 1. Autism is a

- a. Developmental disorder of the lungs.
- b. Developmental disorder of the heart
- c. Developmental disorder of the Nervous System
- ✓ d. Developmental disorder of the brain

3/5

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7/11/23

✓ 2. Autism is a developmental disorder of the human brain

- ✓ a. That gives its first early signs in the early childhood period
- b. Which is caused by childhood vaccines
- c. Which can't be diagnosed until after the child is three years old.
- d. For which there has been a successful cure in recent years.

✗ 3. It can be understood from the passage that autism is (d)

- a. Is caused by a childhood vaccine that affects the development of the brain
- ✓ b. Is accepted as a condition rather than a disorder by all specialists
- c. Is a condition in which a child suffers from severe pains in the head
- ✓ d. Is characterized by abnormalities of behaviour patterns

X 4. It can be understood from the passage that (c)

- ☒ a. Autistic children cannot hear the sounds and are unable to talk with others
- b. Scientists know which genes are responsible for the development of autism
- c. Even if the treatment starts early the child does not have any chance to recover completely
- d. People with autism should be encouraged to live on their own

- ✓ 5. Autism is known to impair
- ☒ a. Social interaction and communication
 - b. Movement of the limbs
 - c. Behavioural patterns
 - d. Sight

II. State whether True or False

- ✓ 1. Autism symptoms start only during teenage (F)
- ✓ 2. Autism is a nervous disorder (F)
- ✓ 3. The medical field has found which genes are responsible for autism (F)
- ✓ 4. Autism causes restricted and repetitive behaviour (T)
- ✓ 5. There is complete cure for Autism (F)

5/5
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III. Answer the following questions in a sentence or two

- ✓ 1. What does Autism impair?
- ✓ 2. Autism is known to cause two kinds of behaviours, what are they?
- ✓ 3. Since when do parents of autistic children start noticing signs of autism?
- ✓ 4. What kind of an intervention can help autistic children to improve at least a little bit?
- ✓ 5. What is autism known to affect?

13/15
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7/11/23

5/5
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- 1) Autism is known to impair social interaction and communication.
- 2) Autism is known to cause Restricted and Repetitive Behaviours, before a child is three years old.
- 3) Parents usually start noticing signs in the first two years of their Autistic child's life.
- 4) Early Behavioural and cognitive Intervention can help autistic children gain self-care, Social and Communication skills.
- 5) Autism affects many parts of the brain.