Teacher's Key

Early Sugar Exposure and the Risk of Adult Anxiety (Level B2)

Vocabulary Matching

1 rationing = **N**
2 exposure = **A**
3 cohort = **H**
4 restricted = **L**
5 association = **G**
6 adjustment = **M**
7 distinct = **I**
8 significant = **E**
9 preference = **D**
10 influence = **O**
11 retrospective = **J**
12 confounding = **K**
13 causation = **B**
14 policy = **C**
15 lasting = **F**

Fill in the Blank

1 rationing
2 exposure
3 cohort
4 restricted
5 association
6 adjustment
7 distinct
8 significant
9 preference
10 influence
11 retrospective
12 causation
13 policy
14 lasting

True or False

1 **True.** Paragraph 1 states this directly.
2 **False.** Rationing ended in 1953, according to the reading.
3 **True.** Paragraph 2 states this directly.
4 **False.** They were grouped by how long their early sugar intake had been restricted.
5 **True.** Paragraph 3 states this directly.
6 **False.** It became weaker after adjustment, according to the reading.
7 **True.** Paragraph 4 states this directly.
8 **False.** They reported a weaker preference, according to the reading.
9 **False.** Paragraph 6 says a link does not establish causation.
10 **True.** Paragraph 7 calls this an obvious next test.

Language Focus: Passive Voice in Research Writing

Example answer: The two groups **were compared** by researchers.

Comprehension Questions: Model Answers

1 Because rationing was set by the government rather than by personal choice, researchers can study sugar exposure without the usual problem of people choosing what, and how much, to eat.

2 Whether the amount of sugar a person consumed before age two could shape their mental health decades later.

3 By how long their early sugar intake had been restricted, from rationing only before birth up to rationing through 24 months, plus an unrationed comparison group and a separate group born in Ireland.

4 Adults with the longest period of early sugar restriction had the lowest risk of developing anxiety later in life, an association that was especially strong among women.

5 It became much weaker after statistical adjustment for other factors. The researchers suggest that depression may be shaped more by diet later in adulthood than by what happened in infancy.

6 Gray matter volume differed in 80 of 139 brain regions across rationing groups, and 11 regions, including parts of the cerebellum, showed especially significant differences between most rationed groups and the unrationed group.

7 Those with the least early sugar exposure reported the weakest adult preference for sweet foods, which suggests early diet may shape lifelong taste, not only mental health risk.

8 Any three of: it is retrospective, not based on real-time diaries; individual sugar intake was never directly measured; other social and economic differences could be confounding the results; a link does not establish causation.

9 Open answer. A strong answer notes that a link only shows two things tend to occur together, while causation would require ruling out other explanations, such as other differences between the postwar decades, which the study cannot fully do.

10 False. Paragraph 6 says that finding a link between early sugar exposure and adult anxiety does not establish causation, so the study does not prove a direct cause.

11 Yes. Paragraph 1 states the writer's view that most diet research has one persistent weakness: it depends on people accurately remembering what they ate.

12 Best answer: to help readers judge the findings fairly. Accept a reasoned answer about honesty or caution, but the paragraph does not reject the study's findings outright.

Notes on the Evidence

- Main study: Navratilova, H. F., Whetton, A. D., and Geifman, N. 'Dietary sugar exposure in early life and risk of adult mental health disorders: UK Biobank cohort study.' Translational Psychiatry, published online August 19, 2026 (DOI 10.1038/s41398-026-04376-w). University of Surrey press release, September 22, 2026. Reports checked September 27, 2026: News-Medical.net (September 21, 2026), Scientific Frontline (September 22, 2026), US News (September 24, 2026).
- Sample and design: the paper's abstract gives 46,448 participants born October 1, 1951 to March 31, 1956; the release rounds this to more than 45,000. Groups: rationed in utero only, in utero plus 6, 12, 18, or 24 months, an unrationed group born after rationing ended, and a separately analyzed group born in Ireland. UK sugar rationing ended in September 1953; sweets came off the ration in February 1953. Irish Emergency rationing had ended by the late 1940s, so the Irish group was not under sugar rationing; the release describes Ireland as not rationing sugar in this period. The original reading said Ireland's rationing 'followed a different timeline'; this was corrected.
- Figures: abstract hazard ratios for the longest-rationed group versus the unrationed group were 0.67 for anxiety (95% CI 0.53 to 0.84) and 0.71 for depression (0.57 to 0.87) before the adjustment the release describes; the release says the depression link 'reduced in significance after statistical adjustment'. Sweet preference score 5.82 versus 6.04 ($p = 0.0042$). Brain: 80 of 139 gray matter regions differed across groups; 11 of those differed between most rationed groups and the unrationed group, including cerebellar regions. The stronger anxiety association in women is reported by the release; the full paper's sex-specific statistics were not reviewed.
- Context: Gracner, T., Boone, C., and Gertler, P. J. 'Exposure to sugar rationing in the first 1000 days of life protected against chronic disease.' Science, October 31, 2024: up to 35% lower risk of type 2 diabetes and up to 20% lower risk of hypertension (UC Berkeley summary). The reading gives this only as background, without figures.
- Revision (September 2026): fix mode; the argument is unchanged. The 'new study' wording was dated to 2026 and the 2024 Science study was added as context. Ireland was corrected. The unverified claims that depression was adjusted for 'income or education' and that 'the team now wants to test' younger generations were removed; the latter is now the writer's suggested next test. 'Nowhere else' was softened to match the researchers' own wording. 'Correlation' was replaced by 'causation' because it was a near-synonym of 'association'; the definition of 'lasting' was reworded to avoid overlap with 'influence'. The True/False/Not Given answer was corrected to False, and the Yes/No/Not Given item now asks about a view the writer states. 'Policy' no longer appears unbolded before its vocabulary paragraph; 'grey' became 'gray'. Resource descriptions were rewritten for learners, and the preprint link was replaced. Two overlapping discussion questions were replaced.
- Hindi and Arabic translations are unchecked by a native speaker, as with every EnglishBridges unit.