

# Music as Post-Surgery Pain Relief

### **Description**

Following surgery, listening to music appears to alleviate a patient's pain and anxiety, presenting a promising and accessible strategy to reduce the usage of pain medications.

Post-anaesthesia, individuals often grapple with feelings of disorientation, anxiety, or surgical discomfort," remarks <u>Eldo Frezza</u> at California Northstate University College of Medicine. This observation led Frezza and his team to explore the potential benefits of music therapy in the postoperative period.

Various studies have consistently demonstrated the calming effects of <u>music</u>, prompting Frezza and colleagues to investigate its impact on pain, anxiety, heart rate, and analgesic consumption immediately following surgery.

The analysis encompassed 35 studies involving approximately 100 participants each, focusing on different music genres post-abdominal or bone-related surgeries. Duration of music exposure ranged from half an hour to discharge time.

Comparing outcomes with a control group, the results, presented at the American College of Surgeons congress in San Francisco, California, revealed a noteworthy 20% reduction in reported pain levels among music listeners. Additionally, these individuals required only half the morphine dosage of non-listeners during hospitalization.

The team also noted reduced anxiety levels, evidenced by a 4.5 bpm drop in heart rate and a 2.5 point decline in self-reported anxiety scores on a 20 to 80 scale.

According to <u>Annie Heiderscheit</u> at Anglia Ruskin University, music's positive impact on mood is attributed to the elevation of serotonin levels, a signaling molecule that induces feelings of well-being. Heiderscheit suggests that integrating music therapy into post-surgical care could offer a simple and cost-effective approach to aid patient recovery.

For robust conclusions, Frezza advocates large-scale randomized trials involving individuals undergoing similar surgeries, differentiating the impact of music intervention from various parameters. This strategy, he believes, would provide more conclusive evidence compared to amalgamating findings from small-scale studies.

# **Vocabulary List:**

- 1. Alleviate /ə'li:.vi.eɪt/ (verb): To make something less severe.
- 2. Analgesic /,æn.əl'dʒi:.zɪk/ (noun): A medication that reduces or eliminates pain.



- 3. Disorientation /dɪs,ɔ:r.i.en'teɪ.ʃən/ (noun): A state of confusion about time place or identity.
- 4. **Postoperative** /,poʊst'pp.ə.ra.tɪv/ (adjective): Relating to the period following a surgical operation.
- 5. **Incidence** /'ɪn.sɪ.dəns/ (noun): The occurrence of an event or situation.
- 6. **Signaling** /'sɪg.nəl.ɪŋ/ (verb): To indicate or communicate something through signals.

## **Comprehension Questions**

#### **Multiple Choice**

1. What did Eldo Frezza and his team explore the potential benefits of in the postoperative period?

Option: A. Pain medications

Option: B. Music therapy

Option: C. Surgical discomfort

Option: D. Anaesthesia

2. Which organization presented the results of the study on music therapy after surgery?

Option: A. World Health Organization

Option: B. American College of Surgeons

Option: C. Centers for Disease Control and Prevention

Option: D. National Institutes of Health

3. What percentage reduction in reported pain levels was observed among music listeners?

Option: A. 5%

Option: B. 10%

Option: C. 20%

Option: D. 30%

4. What is the signaling molecule that induces feelings of well-being and is attributed to music's positive impact on mood?

Option: A. Dopamine

Option: B. Serotonin

Option: C. Adrenaline

Option: D. Melatonin

5. How many studies were encompassed in the analysis of music therapy after surgery?

Option: A. 20

Option: B. 30



Option: C. 35 Option: D. 40

6. What was the main focus of the studies on music therapy post-abdominal or bone-related surgeries?

Option: A. Cardiovascular health Option: B. Pain management Option: C. Respiratory function Option: D. Digestive system

#### **True-False**

- 7. Listening to music does not have any impact on reducing anxiety levels post-surgery.
- 8. Annie Heiderscheit suggests that music therapy could offer a cost-effective approach to aid patient recovery.
- 9. Eldo Frezza believes that large-scale randomized trials would not provide more conclusive evidence compared to small-scale studies.
- 10. The duration of music exposure in the studies ranged from half an hour to discharge time.
- 11. Music listeners required more morphine dosage than non-listeners during hospitalization.
- 12. Frezza and colleagues focused on the impact of music intervention on anesthesia levels post-surgery.

#### **Gap-Fill**

13. The results revealed a noteworthy	% reduction in reported pain levels among			
music listeners.				
14. The team noted a	bpm drop in heart rate among individuals who listened to			
music post-surgery.				
15. Heiderscheit suggests that integrating music therapy into post-surgical care could offer a simple and				
approach to aid patie	ent recovery.			
16. Eldo Frezza advocates large-scale randomiz	zed trials to differentiate the impact of music intervention			



from various		
17. The analysis encompassed	studies involving approxim	nately 100 participants
each.		
18. Frezza and his team explored the potential benefits	of	therapy in the
postoperative period.		

### **Answer**

Multiple Choice: 1. B. Music therapy 2. B. American College of Surgeons 3. C. 20% 4. B. Serotonin 5. C. 35

6. B. Pain management

True-False: 7. False 8. True 9. False 10. True 11. False 12. False

Gap-Fill: 13. 20 14. 4.5 15. cost-effective 16. parameters 17. 35 18. music VEWS.COM

# Vocabulary quizzes

### Multiple Choice (Select the Correct answer for each question.)

1. What is the primary purpose of an analgesic?

Option: To alleviate pain Option: To induce sleep

Option: To increase heart rate Option: To reduce blood pressure

2. What can lead to frustration when imposed on individuals?

Option: Freedom Option: Restrictions Option: Opportunities Option: Empathy

3. Which medical condition involves abnormal cell growth?

Option: Diabetes Option: Arthritis Option: Tumour Option: Asthma



#### 4. Which term is related to blood vessels?

Option: Vascular Option: Digestive Option: Muscular Option: Skeletal

5. Which scientific technique involves studying objects using a microscope?

Option: Microscopy Option: Photography Option: Astronomy Option: Geology

6. What is a demand for the release of a captive in exchange for money called?

Option: Bargain Option: Ransom Option: Gift

Option: Donation

7. Which term describes obtaining something through coercion?

Ontion: Negatistics: ESL-NEWS

Option: Negotiation Option: Extortion Option: Compromise Option: Agreement

8. What does proximity refer to?

Option: Distance Option: Time Option: Weight Option: Volume

9. What does the term "allure" mean?

Option: Repel Option: Attract Option: Shine Option: Disappear

10. What does "dwindling" indicate?

Option: Increasing Option: Decreasing Option: Stable Option: Growing



## Gap-Fill (Fill in the blanks with the correct word from the vocabulary list.)

11. An	is a medication	that helps	pain.		
12. Cell	is essential for	the communica	ation and coordination of various cellular		
activities.					
13	arises when obstac	cles prevent the	accomplishment of goals or fulfillment of		
needs.					
14. Navigating through the		of modern	life can be challenging.		
15. The spy managed to		_ the enemy ca	mp without being detected.		
16. The undercover agent we	ent on a secret	TIS C	to gather intelligence.		
17. Security guards need to		to pre	event any breaches.		
18. The company reached th	ie 185	of succe	ess with its latest product launch.		
19. The famous singer is known	own by the		"Queen of Pop."		
20. The	of the disease	has increased o	ver the past decade.		
Matching Sentences ( Ma	atch each definitio	n to the corre	ct word from the vocabulary list. )		
21. Patients may experience after undergoing anesthesia.					
22. The care is crucial for the recovery of surgical patients.					
23. There are legal for violating traffic rules.					
24. Strict govern the handling of hazardous materials.					
25. Drug can lead to unexp	pected side effects.				
26. The process of growing fruit on trees is known as .					



- 27. The glass allowed light to pass through but blurred the view.
- 28. The spy managed to sensitive information from the enemy base.
- 29. The beauty of the landscape held a mysterious .
- 30. The of international diplomacy require skilled negotiators.

#### **Answer**

Multiple Choice: 1. To alleviate pain 2. Restrictions 3. Tumour 4. Vascular 5. Microscopy 6. Ransom 7.

Extortion 8. Distance 9. Attract 10. Decreasing

Gap-Fill: 11. analgesic, alleviate 12. signaling 13. Frustration 14. complexities 15. infiltrate 16. operative

17. vigilant 18. apogee 19. moniker 20. incidence

Matching sentence: 1. Disorientation 2. Postoperative 3. Penalties 4. Regulations 5. Interactions 6. Fruiting ESL-NEWS.COM

7. Translucent 8. Exfiltrate 9. Allure 10. Complexities

#### **CATEGORY**

1. Sci/Tech - LEVEL5

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