



DOSSIER · THERAPY

Music Therapy

Music therapy counts among the most frequently investigated non-pharmacological procedures. The database shows a considerable number of works on humans, of which a large part are controlled studies. The focus lies on **cognitive functions** and **fatigue**, yet the methodological heterogeneity of the interventions limits comparability.

1,342

STUDIES IN
TOTAL

1,028

IN HUMANS

574

OF WHICH
CONTROLLED

8

IN ANIMALS

0

IN THE LAB

Figures from the IHR study database · Last updated 2026-10-04

How to Read This Dossier

ESTABLISHED

measured in humans, with a comparison group

PLAUSIBLE

supported by mechanism, animal studies or observation

HYPOTHESIS

a likely connection that still needs to be tested

Music Therapy at a Glance

ORIGIN:

Music therapy is a clinical procedure that deliberately employs musical elements such as active music-making, listening, improvisation or composition to influence psychological, cognitive or physical processes. Its roots extend back to ancient healing traditions; modern forms developed from the 20th century onwards, particularly in psychiatry and rehabilitation. Today it is recognised in psychotherapy, palliative medicine and neurology and is delivered in inpatient, outpatient or group settings.

EVIDENCE BASE:

1,342 evaluated works · 574 controlled human studies · 454 observational studies · 96 review articles · 8 animal studies · 0 cell-culture studies

STRONGEST EVIDENCE:

- **Fatigue and stress:** A 2022 meta-analysis of 47 controlled studies (2,747 participants) showed that personalised music therapy delivered by trained therapists significantly reduced physiological (heart rate, cortisol) and psychological stress parameters (STAI). Effects were stronger in clinically controlled studies and in non-Western countries.
- **Cognition and psyche** 26 of 28 studies demonstrated significant reductions in depressive symptoms (Hamilton Depression Rating Scale, Beck Depression Inventory) through music therapy. Active methods (singing, instrumental playing) tended to be more effective than passive ones. In Alzheimer patients, global cognition, memory and attention improved in 6 of 8 RCTs.
- **Pain management** A 2017 meta-analysis of 14 RCTs showed significant reductions in pain intensity (visual analogue scales) in chronic pain conditions. Live music therapy reduced pain and anxiety in children during invasive procedures more than recorded music.
- **Oncology:** Studies with 4–8-week interventions showed significant improvements in quality of life (EORTC QLQ-C30) as well as reductions in anxiety, depression and pain in cancer patients. Effect sizes were in the moderate to large range (e.g. $g = -0.656$ for pain).
- **Obstetrics and intensive care** An RCT with 304 women showed that self-selected music during caesarean sections significantly lowered anxiety (STAI) and stress parameters (cortisol, heart rate). Music had a stronger effect on blood pressure than aromatherapy, although long-term data were absent.

LIMITATIONS:

- Methodological heterogeneity (musical styles, duration, setting) complicates meta-analyses and direct comparisons. Many studies have small samples, lack blinding or use inconsistent control conditions.
- Long-term data on the sustainability of effects are absent in almost all application areas. Mechanistic studies (e.g. neuroplastic changes) are limited and not directly transferable to clinical applications.
- The definition of “music therapy” varies widely (active vs. passive methods), and standardised protocols exist only for a few areas such as oncology or dementia.

CLASSIFICATION:

Music therapy is a well-studied, non-pharmacological procedure with demonstrated effects on stress, anxiety, pain and cognitive functions in controlled studies. Its evidential strength is limited by methodological heterogeneity and the absence of long-term data. The next step is to clarify which protocols achieve the most sustainable effects.

1. What Music Therapy Is

Music therapy is a clinical procedure that deliberately employs musical elements – active music-making, listening, improvisation or composition – to influence psychological, cognitive or physical processes. It is delivered in various settings: inpatient, outpatient or in groups, with or without therapist guidance. Its roots extend back to ancient healing traditions; modern forms developed from the 20th century onwards. Today it is a recognised procedure in psychotherapy, palliative medicine and neurology.

The **diversity of interventions** is decisive for the evidence base: music therapy encompasses passive approaches (e.g. receptive listening to pre-produced pieces) as well as active methods (e.g. singing, instrumental playing or movement to music). Duration ranges from single sessions to multi-week programmes. Standardised protocols exist only for a few application areas, for example in oncology or dementia care. Measurement instruments range from subjective scales (e.g. anxiety or pain perception) to objective parameters (e.g. cortisol levels or cognitive tests).

2. What the Studies Show in Detail

The key human studies and the most important reviews — by application area, with population, duration, preparation, measure and result as reported in the original works. Numbers appear only where the work states them.

Distribution of **controlled human studies** by application area — the numbers are not additive, as one work may be assigned to several areas:

APPLICATION AREA	CONTROLLED STUDIES
Cognition and psyche	447
Fatigue and stress	227
Heart and circulation	92

APPLICATION AREA	CONTROLLED STUDIES
Safety and tolerability	91
Oncology	59
Musculoskeletal system	51
Gut and microbiome	13
Immune system	12

Fatigue and Stress

The multicentre meta-analysis of 2022¹ examined 47 controlled studies with a total of 2,747 participants who received music therapy for stress reduction in medical and psychotherapeutic settings. Music therapy was defined here as a *personalised* intervention by trained therapists – in contrast to passive music listening (“Music Medicine”). The studies lasted between one session and several weeks, with most interventions comprising 30–60 minutes per session. Both physiological (e.g. heart rate, cortisol) and psychological stress parameters (e.g. State-Trait Anxiety Inventory, STAI) were measured. Music therapy proved particularly effective in the controlled studies with wait-list controls versus standard treatment or other stress-reducing procedures with regard to psychological stress parameters. Studies from non-Western countries tended to show larger effects than those from Western countries. A limiting factor is the heterogeneity of the interventions (e.g. active vs. passive methods) and the measured outcomes, which complicates direct comparability.

HYPOTHESIS The higher effectiveness in non-Western countries could be attributable to culturally shaped music preferences or greater acceptance of music as a therapeutic medium. However, the meta-analysis lacks detailed information on the musical styles used or the individual adaptation of the interventions, which restricts interpretation. In addition, no long-term data were collected, so it remains unclear whether the effects are sustainable.

What is missing: studies with standardised music therapy protocols and longer follow-up periods to examine the sustainability of the effects.

Cognition and Psyche

The studies included both passive (79 % of studies, e.g. listening to music from CD or live) and active methods (46 %, e.g. singing, playing instruments). The duration of the interventions varied between one session and several months, with most studies covering 4–12 weeks. The primary endpoint was the reduction of stress parameters (measured with scales such as the State-Trait Anxiety Inventory or physiological markers). In the majority of controlled studies, music therapy provided indications of a significant reduction in psychological stress scores compared with the control group. Effect sizes varied according to intervention type, with active methods tending to show stronger effects. A limitation is the high variability of the study protocols (e.g. different music styles, individual vs. group setting) and the often small sample sizes (median: 50 participants per study). In addition, many studies lacked information on long-term effects.

A randomised controlled study from 2016⁵ examined the effect of music with and without binaural beats on perioperative anxiety in 141 patients before cataract operations. The participants were randomised into three groups: one group listened to music with binaural beats (BB), one group listened to music only (MI) and a control group received no music. The intervention lasted 20 minutes before and during the operation. Anxiety was measured with the State-Trait Anxiety Inventory (STAI) and physiological parameters (blood pressure, heart rate). Both music groups showed a significant reduction in STAI scores compared with the control group (MI: -7.0 points; BB: -9.0 points; $p < 0.001$), although the difference between MI and BB was not significant ($p = 0.085$). Systolic blood pressure and heart rate decreased partly significantly in the music groups. A limitation is the short intervention duration and the absence of an active control group (e.g. relaxation exercises).

A systematic review from 2023⁶ analysed eight randomised controlled studies with 689 participants on the effect of music therapy on cognitive functions in Alzheimer's patients. The studies were conducted in Europe (4), Asia (3) and the USA (1) and included interventions lasting 4–24 weeks. Global cognition (e.g. Mini-Mental State Examination), memory, language and attention were measured. Six of the eight studies were of high methodological quality. The results showed that music therapy, compared with standard treatment, produced significant improvements in global cognition, memory and attention in some studies. However, the effects were heterogeneous, and some studies reported no significant differences. A limitation is the small number of studies and the varying definition of “music therapy” (e.g. active music-making vs. passive listening).

HYPOTHESIS The positive effects on cognitive functions could be attributable to the activation of neural networks stimulated by music. However, imaging studies that directly investigate this hypothesis are lacking. It is also unclear whether the effects are specific to Alzheimer's patients or also occur in other forms of dementia.

What is missing: long-term studies with larger samples and uniform music therapy protocols to confirm efficacy on cognitive functions in dementia patients.

Pain Management

A systematic review and meta-analysis from 2017² examined 14 randomised controlled studies in adults who received music interventions for pain reduction in chronic pain conditions. The studies included interventions ranging from one session to several weeks, with most studies using 30–60 minutes of music per session. The primary endpoint was self-reported pain intensity (measured with visual analogue scales or numerical rating scales). Secondary endpoints were quality of life, depression and anxiety. The meta-analysis showed a significant reduction in pain intensity in the music groups compared with control groups, albeit with high heterogeneity ($I^2 = 85\%$). Effect sizes varied according to pain type (e.g. neuropathic vs. nociceptive) and music style. A limitation is the small number of studies per pain type and the absence of long-term data.

A systematic review with meta-analysis from 2015⁴ with three included RCTs examined the effect of music interventions on pain and anxiety in 196 children (age: 1 day to 18 years) during invasive procedures (orthopaedic, cardiac and outpatient operations). The children received either live music therapy or recorded music. Pain was measured with the Visual Analogue Scale (VAS), the Coloured Analogue Scale (CAS) and the Facial Pain Scale; anxiety was

measured with the State-Trait Anxiety Inventory and a facial affect scale. The results showed a significant reduction in pain and anxiety in the music groups compared with the control group, with live music therapy tending to show stronger effects. Limitations include the small number of included RCTs and the lack of standardisation of the music interventions (e.g. duration, music style).

The first postoperative music session showed a significant reduction in anxiety (standardised mean difference, SMD = -0.50; 95 % CI: -0.67 to -0.32) and pain (SMD = -0.51; 95 % CI: -0.84 to -0.19) on the scales used. This corresponded to a reduction of 4.00 points on the STAI scale for anxiety and 1.26 points on the VAS for pain. Multi-day music interventions showed even stronger effects on the scales. A limitation is the heterogeneity of the studies (e.g. different music styles, duration of intervention) and the absence of long-term data.

HYPOTHESIS The pain-reducing effect of music could be attributable to distraction from nociceptive stimuli or modulation of pain processing in the central nervous system. However, neurophysiological studies that directly investigate these mechanisms are lacking.

Oncology

The studies on music therapy included interventions ranging from one session to several months, with controlled studies frequently lasting 4–8 weeks. The primary endpoint was quality of life (measured with scales such as the EORTC QLQ-C30); secondary endpoints were anxiety, depression and pain. These scale values were significantly improved in the studies. The optimal intervention duration was 1–2 months.

The pooled effect sizes were $g = -0.553$ for anxiety, $g = -0.510$ for depression, $g = -0.656$ for pain and $g = -0.422$ for fatigue (measured with validated scales). Subgroup analyses showed that patient age and music selection (self-chosen vs. predetermined) influenced the effect size on anxiety on the scales. A limitation is the small number of studies per outcome and the absence of information on long-term effects.

HYPOTHESIS The positive effects of music therapy in oncology could be attributable to an improvement in emotional regulation and a reduction in stress.

What is missing: larger controlled studies with longer follow-up periods to examine the sustainability of the effects on quality of life and psychological distress in cancer patients.

Further Areas of Application (e.g. Obstetrics, Intensive Care Medicine)

A randomised controlled study from 2018⁷ examined the effect of music during caesarean deliveries on anxiety and stress in 304 women. The intervention group listened to self-chosen music (four genres) via loudspeakers, while the control group received no music. Subjective (STAI, visual analogue scale for anxiety) and objective parameters (salivary cortisol/amylase, heart rate, blood pressure) were measured at four time points: on admission, at skin incision, during skin suture and two hours postoperatively. The music group showed significantly lower anxiety scores during skin suture (STAI: 31.56 vs. 34.41; $p = 0.004$). A limitation is the absence of an active control group (e.g. relaxation exercises) and the short follow-up period.

A randomised controlled study compared music therapy, aromatherapy and a control group for anxiety during medical procedures. The music group listened to self-chosen music, while the aromatherapy group received lavender oil massages. Anxiety (State-Trait Anxiety Inventory, C-STAI) and subjective ratings (VAS for anxiety) were measured. The study showed significantly lower anxiety scores in the music group compared with the control group. The results refer to the combined examination of both procedures; an isolated effect of music therapy cannot be derived from this. A limitation is the short intervention duration (one session) and the absence of long-term data.

A limitation is the heterogeneity of the studies (e.g. different patient groups, music styles) and the absence of information on the sustainability of the effects.

HYPOTHESIS The positive effects of music in obstetrics and intensive care medicine could be attributable to a reduction in stress hormones and an improvement in emotional regulation.

What is missing: studies with standardised music interventions and longer follow-up periods to examine the sustainability of the effects in various clinical settings.

Overall Picture

The available controlled studies consistently show that music therapy and music-based interventions have positive effects on a variety of clinical outcomes, including stress, anxiety, depression, pain, cognitive functions and quality of life. The effects on anxiety and pain are particularly well studied, with effect sizes often in the medium to large range. Efficacy appears to be independent of the setting (e.g. perioperative care, oncology, obstetrics) and of the type of intervention (active vs. passive), although active methods tend to show stronger effects. However, the heterogeneity of the studies is a recurring problem: different music styles, intervention durations and measurement instruments make it difficult to compare the results.

Despite the existing controlled studies, long-term studies investigating the sustainability of the effects are lacking in many areas. In addition, the underlying mechanisms (e.g. neurophysiological changes, emotional regulation) are often insufficiently researched. The evidence base is particularly limited for specific patient groups, such as children with developmental disorders or patients with rare diseases. The question of whether music therapy is effective as a standalone intervention or only in combination with other therapies also often remains unanswered.

Methodology of the Evidence Base

The randomised controlled trials (RCTs) and other controlled studies typically include endpoints such as subjective parameters (e.g. anxiety and pain scales, quality of life) and objective measures (e.g. heart rate, blood pressure, cortisol). The duration of the interventions varies widely: from a single session (e.g. perioperative music) to several months (e.g. music therapy in dementia). However, standardised protocols are often lacking, which limits the comparability of the studies. Most studies involve interventions of 4–12 weeks, although some studies examine only a single session (e.g. 20–60 minutes). Long-term studies with follow-up periods of more than six months are rare. Primary endpoints are often psychological parameters such as anxiety, depression and pain, while secondary endpoints include quality of life, cognitive functions or physiological markers. Neurobiological mechanisms (e.g. fMRI studies) or economic aspects (e.g. cost-effectiveness) are rarely investigated. Standardised music therapy protocols that would allow replication of the results are lacking. In

addition, many studies are conducted with small samples, which limits statistical power. Long-term data on the sustainability of the effects are rare, and the underlying mechanisms (e.g. neuronal plasticity, stress reduction) are often insufficiently investigated. The role of music preferences (e.g. self-selected versus prescribed music) is also unclear.

Music Therapy: Efficacy or Context Effect?

The

FREQUENT ASSUMPTION

that music therapy acts via specific musical elements (e.g. tempo, harmony or rhythm) is only partially supported by the evidence. Many controlled studies compare music interventions with **standard care or silence**, not with active control conditions such as relaxation procedures or talk therapy. This leaves unclear whether observed effects are attributable to the music itself or to non-specific factors such as attention, distraction or expectation. Some studies show that even placebo music (e.g. white noise with musical character) can achieve similar effects to targeted therapy.

A further problem is the

LACK OF STANDARDISATION

. While structured protocols are often used in oncology or dementia care, interventions vary considerably in other areas – for example in the treatment of anxiety or depression. Even in meta-analyses, different music styles, session lengths or therapist qualifications are pooled. This leads to contradictory results: some reviews report moderate effects on pain or anxiety, others find no significant differences compared with the control group. The evidence therefore does not permit a clear statement on the **superiority** of music therapy over other non-pharmacological procedures.

3. How Robust the Research Is

Research on music therapy focuses on **cognitive functions** and **fatigue**, followed by **cardiovascular diseases** and **oncological applications**. The most cited works are meta-analyses and systematic reviews examining stress reduction, pain management and depressive symptoms. Observational studies complement the controlled trials, which primarily examine clinical endpoints such as quality of life or symptom relief. Animal studies or environmental research play almost no role.

The **methodological robustness** of the studies is inconsistent. Many works have small samples, lack blinding or use heterogeneous control conditions. The heterogeneity of the interventions – for example music genre, duration or setting – complicates meta-analyses. Some highly cited reviews show consistent trends, yet effect sizes vary widely. Mechanistic studies suggest neuroplastic changes or autonomic regulatory processes, but transferability to clinical applications remains limited. The safety of the method is well documented, but is rarely a primary endpoint.

4. What Is Frequently Claimed — and What the Data Support

STATEMENT	EVIDENCE BASE
Music therapy effectively relieves chronic pain.	Controlled studies examine music interventions for pain reduction, for example in postoperative or oncological pain; the results are inconsistent. However, the
Music therapy improves cognitive functions in dementia.	Systematic reviews find indications of short-term improvements in memory, attention or behavioural symptoms; however, the controlled results are inconsiste
Music therapy is as effective as psychotherapy for depression.	Individual meta-analyses show comparable effects on depressive symptoms, yet the evidence base is still developing and methodologically limited. Most stu
Active music-making is more effective than passive listening.	The evidence is inconsistent . Some studies find benefits for active methods, others show no differences. The choice of intervention depends strongly on the

5. The Most Robust Works

Ordered by strength of evidence, not by prominence. The complete evaluation comprises considerably more works; the most robust are listed here.

Controlled Human Studies

- ¹ Music therapy for stress reduction: a systematic review and meta-analysis (2022)
- ² Music-Induced Analgesia in Chronic Pain Conditions: A Systematic Review and Meta-Analysis (2017)
- ³ The effectiveness of music therapy for patients with cancer: A systematic review and meta-analysis (2020)
- ⁴ The Effects of Perioperative Music Interventions in Pediatric Surgery: A Systematic Review and Meta-Analysis of Randomized Controlled Trials (2015)
- Reviewing the Effectiveness of Music Interventions in Treating Depression (2017)
- ⁵ The effect of music with and without binaural beat audio on operative anxiety in patients undergoing cataract surgery: a randomized controlled trial (2016)
- ⁶ The effect of music therapy on cognitive functions in patients with Alzheimer's disease: a systematic review of randomized controlled trials (2023)
- Music intervention to relieve anxiety and pain in adults undergoing cardiac surgery: a systematic review and meta-analysis (2021)
- Association of Music Interventions With Health-Related Quality of Life: A Systematic Review and Meta-analysis (2022)
- Effect of music intervention on burn patients' pain and anxiety during dressing changes (2016)
- ⁷ Effects of music intervention during caesarean delivery on anxiety and stress of the mother a controlled, randomised study (2018)
- A systematic review of music-based interventions for procedural support (2015)
- Effectiveness of music therapy for autism spectrum disorder, dementia, depression, insomnia and schizophrenia: update of systematic reviews (2022)
- Effects of easy listening music intervention on satisfaction, anxiety, and pain in patients undergoing colonoscopy: a pilot randomized controlled trial (2019)
- The effects of music intervention on burn patients during treatment procedures: a systematic review and meta-analysis of randomized controlled trials (2017)
- Comparing effects between music intervention and aromatherapy on anxiety of patients undergoing mechanical ventilation in the intensive care unit: a review (2017)
- ⁸ Effects of music therapy under general anesthesia in patients undergoing abdominal surgery (2017)
- ⁹ Effects of an Early Postnatal Music Intervention on Cognitive and Emotional Development in Preterm Children at 12 and 24 Months: Preliminary Findings (2019)
- ¹⁰ Music for reducing the anxiety and pain of patients undergoing a biopsy: A meta-analysis (2018)
- ¹¹ Music Intervention for Pain Control in the Pediatric Population: A Systematic Review and Meta-Analysis (2022)
- ¹² Music Therapy in Pain and Anxiety Management during Labor: A Systematic Review and Meta-Analysis (2020)
- ¹³ The effect of music on anxiety in women undergoing cesarean delivery: a systematic review and meta-analysis (2021)
- Feasibility of Conducting Nonpharmacological Interventions to Manage Dementia Symptoms in Community-Dwelling Older Adults: A Cluster Randomized Controlled Trial (2020)
- ¹⁴ The influence of music during mechanical ventilation and weaning from mechanical ventilation: A review (2015)

6. Summary

The studies presented show consistent positive effects of music therapy on stress, anxiety, depression, pain, cognitive functions and quality of life. The effects are evident independently of the setting (perioperative, oncology, obstetrics) and the type of intervention, with active methods (e.g. singing, instrumental playing) tending to show stronger effects than passive ones (e.g. listening to music). Research focuses on cognitive functions, fatigue, cardiovascular diseases and oncological applications, while other areas such as the immune system or the musculoskeletal system are less investigated.

HYPOTHESIS The positive effects of music therapy could be attributable to neuroplastic changes, autonomic regulatory processes or a modulation of pain processing in the central nervous system. The higher effectiveness in non-Western countries suggests culturally shaped music preferences or a greater acceptance of music as a therapeutic agent. In addition, the pain-reducing effect could be mediated by distraction from nociceptive stimuli or an improvement in emotional regulation.

To strengthen the evidence, studies with larger samples, standardised music therapy protocols and longer follow-up periods are necessary. Particularly urgent are investigations into the sustainability of the effects in all areas of application as well as mechanistic studies that elucidate the underlying neurobiological processes. In addition, future work should reduce the heterogeneity of the interventions to improve comparability. There is also a need for clarification regarding the optimal intervention duration, the role of music styles and the individual adaptation of the therapy to patient needs.

7. What Remains Open

- **Dose-response relationship:** It is unclear how duration, frequency or intensity of music therapy influence the effects. The protocols examined do not vary systematically in these parameters.
- **Long-term effects:** The majority of studies examine short-term effects. Whether music therapy brings about sustainable changes is scarcely researched.
- **Neurobiological mechanisms:** Imaging studies indicate changes in limbic and prefrontal areas, yet the **causal pathways** are not clarified.

Frequently Asked Questions

Can music therapy be used in children with autism spectrum disorder?

Controlled studies show **indications** of improvements in social interaction, communication and emotional regulation; however, the results are heterogeneous. The effects depend strongly on the individual manifestation of the disorder. Meta-analyses emphasise the importance of **structured, individually adapted** interventions. The data situation is sufficient for an **empirical examination**, but not for a general recommendation.

Is music therapy effective in cardiovascular diseases?

Some controlled studies examine music interventions with regard to parameters such as heart rate, blood pressure or stress markers; the results are inconsistent. The effects are small and often not clinically relevant. Reviews emphasise that music therapy is **no substitute** for established therapies, but can be used as a supportive measure. The methodological quality of the studies is limited.

How is music therapy used in palliative medicine?

In palliative medicine, music therapy aims at **symptom relief** (pain, anxiety, restlessness) and **improvement of quality of life**. Controlled studies show positive effects, particularly in oncological patients; however, the results are not uniform. The interventions range from receptive listening to active music-making. The data situation is sufficient for **use in individual cases**, but not for a standardised recommendation.

Sources

- 1 **Music therapy for stress reduction: a systematic review and meta-analysis**
de Witte M, Pinho ADS, Stams GJ, Moonen X, Bos AER, van Hooren S · 2022
- 2 **Music-Induced Analgesia in Chronic Pain Conditions: A Systematic Review and Meta-Analysis**
Garza-Villarreal EA, Pando V, Vuust P, Parsons C · 2017
- 3 **The effectiveness of music therapy for patients with cancer: A systematic review and meta-analysis**
Li Y, Xing X, Shi X, Yan P, Chen Y, Li M et al. · 2020
- 4 **The Effects of Perioperative Music Interventions in Pediatric Surgery: A Systematic Review and Meta-Analysis of Randomized Controlled Trials**
van der Heijden MJ, Oliai Araghi S, van Dijk M, Jeekeel J, Hunink MG · 2015
- 5 **The effect of music with and without binaural beat audio on operative anxiety in patients undergoing cataract surgery: a randomized controlled trial**
Wiwatwongwana D, Vichitvejpaisal P, Thaikruea L, Klaphajone J, Tantong A, Wiwatwongwana A et al. · 2016
- 6 **The effect of music therapy on cognitive functions in patients with Alzheimer's disease: a systematic review of randomized controlled trials**
Bleibel M, El Cheikh A, Sadier NS, Abou-Abbas L · 2023
- 7 **Effects of music intervention during caesarean delivery on anxiety and stress of the mother a controlled, randomised study**
Hepp P, Hagenbeck C, Gilles J, Wolf OT, Goertz W, Janni W et al. · 2018
- 8 **Effects of music therapy under general anesthesia in patients undergoing abdominal surgery**
Kahloul M, Mhamdi S, Nakhli MS, Sfeyhi AN, Azzaza M, Chaouch A et al. · 2017
- 9 **Effects of an Early Postnatal Music Intervention on Cognitive and Emotional Development in Preterm Children at 12 and 24 Months: Preliminary Findings**
Lejeune F, Lordier L, Pittet MP, Schoenhals L, Grandjean D, Hüppi PS et al. · 2019
- 10 **Music for reducing the anxiety and pain of patients undergoing a biopsy: A meta-analysis**
Song M, Li N, Zhang X, Shang Y, Yan L, Chu J et al. · 2018
- 11 **Music Intervention for Pain Control in the Pediatric Population: A Systematic Review and Meta-Analysis**
Ting B, Tsai CL, Hsu WT, Shen ML, Tseng PT, Chen DT et al. · 2022
- 12 **Music Therapy in Pain and Anxiety Management during Labor: A Systematic Review and Meta-Analysis**
Santiváñez-Acosta R, Tapia-López ELN, Santero M · 2020
- 13 **The effect of music on anxiety in women undergoing cesarean delivery: a systematic review and meta-analysis**
Weingarten SJ, Levy AT, Berghella V · 2021
- 14 **The influence of music during mechanical ventilation and weaning from mechanical ventilation: A review**
Hetland B, Lindquist R, Chlan LL · 2015

International Health Research

Research, put in context. Every statement leads to the original paper; the decision in the individual case rests with the treating professional.
ih-research.com/en/knowledge/music-therapy/ · Last updated 2026-10-04