



# FACT SHEET: Music Therapy and Autism Spectrum Disorder (ASD)

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## What is ASD?

Autism Spectrum Disorder (ASD) is a neurodevelopmental disorder, currently affecting 1 in 68 individuals in the United States (CDC, 2014). While the causes are still unclear, the DSM-5 describes the following two core characteristics of ASD: 1) deficits in social communication and social interaction across multiple contexts, and 2) restricted, repetitive patterns of behaviors, interests, and activities. As there is presently no cure for ASD, effective interventions such as music therapy are crucial for individuals with ASD to maximize their potential and lead fulfilled lives.

## Why Music Therapy for Individuals with ASD?

*Music Therapy is the clinical and evidence-based use of music interventions to accomplish individualized goals within a therapeutic relationship by a credentialed professional who has completed an approved music therapy program (AMTA, 2005).*

People of all ages, cultures, socioeconomic backgrounds, and degrees of abilities respond to aspects of music in daily life. The engaging nature and accessibility of music often elicits positive responses of individuals with ASD (Kern, 2014). Researchers have discussed advanced music memory, responsiveness, and aptitudes within this population; more recent studies show that individuals with ASD may have a heightened musical aptitude and sensitivity to musical elements, yet similar skills of music perception as compared to typically developing peers (Heaton, 2005). While only a small number of individuals with ASD are musical savants (Treffert, 2012), all clients can benefit from music therapy interventions.

## What is the Focus of Music Therapy Interventions for Individuals with ASD?

Music therapy interventions focus on enhancing social, communicative, motor/sensory, emotional, and academic/cognitive functioning, or music skills in individuals with ASD. Music therapy services are based on each client's individual abilities, noting preferences, needs, the family's values, beliefs, and priorities. Music therapists work in partnership with clients, families, and teams.

The music therapy assessment process is designed to gain an understanding of the individual's current level of functioning while engaging in a variety of intentional and developmentally sound music experiences. The music therapy intervention plan is based on the assessment outcomes. It integrates a variety of ASD-specific evidence-based strategies (e.g., prompting, reinforcement, picture schedule) and music therapy techniques (e.g., singing/vocalization, instrument play, movement/dance, musical improvisation, songwriting/composition, listening to music, or computer-based music activities). These strategies and techniques support clients in practicing identified and targeted skills. Music therapy sessions provide familiarity, consistency, structure, and predictability – characteristics that support the learning style of individuals with ASD. Music therapists document clients' responses and conduct ongoing evaluation of progress towards the achievement of goals while making recommendations for generalization and future intervention options. These measures and suggestions may assist the individual with ASD, family, and team to appreciate success while empowering clients to maximize their potential in all aspects of their lives (Kern & Humpal, 2012).

## Does Research Support the Benefits of Music Therapy for Individuals with ASD?

Over the past seven decades, numerous anecdotal case studies and narrative as well as systemic reviews have described the benefits of music therapy interventions for individuals with ASD. Currently, music therapy is identified as an emerging practice by the National Autism Center (2009). Although studies meeting criteria for full evidence-based

practice are somewhat limited, the following research-based statements can be made with confidence:

- Music therapy interventions are informed by research evidence and incorporate many of the identified ASD-specific evidence-based practices in each session (Kern, Rivera, Chandler, & Humpal, 2013).
- Music therapy services for young children with ASD are very effective (overall effect size of  $d = 0.76$ ;  $p < 0.0001$ ) for improving communication, interpersonal skills, personal responsibility, and play (Whipple, 2012).
- Music therapy interventions may assist individuals with ASD to identify and appropriately express their emotions (Katagiri, 2009).
- Music therapy interventions may impact joint attention, memory, and visual recall of individuals with ASD (Kalas, 2012).
- Music therapy interventions may enhance auditory processing and other sensory/motor, perceptual/motor, or gross/fine motor skills in individuals with ASD (LaGasse & Hardy, 2013).
- Music therapy interventions based on family-centered practice may increase social engagement in the home environment and community (Thompson, McFerran, & Gold, 2013).
- Music therapy interventions using musically adapted social stories may modify target behavior and teach new skills (Brownell, 2002).

## Where Do Music Therapists Work with Individuals with ASD?

Music therapists accept referrals and provide assessments and interventions to individuals with ASD and their families in public schools, family's homes, private practice settings, preschools/daycares, music therapy agencies, early intervention programs, treatment centers, support groups, hospitals, and various venues within the community. The role of the music therapist may be as a provider of direct services (i.e., via individual and group sessions), as a coach to parents, or as a consultant to family members/caregivers, educators, or team members (Kern et al., 2013).

## Who Pays for Music Therapy Services?

Music therapy is an evidence-based health profession and is recognized as a related service under the Individual with Disabilities Education Act (IDEA). Therefore, preschool and school-age children and youth may be eligible for music therapy services under the IDEA Part B. Services also may be funded by states, foundations, or community grants. Many music therapists also accept private payments.

## Where can you find a Qualified Music Therapist?

Use the AMTA Online Directory to search for a qualified music therapist in your area. For additional information, please contact the national office:

The American Music Therapy Association, Inc.  
8455 Colesville Road, Suite 1000  
Silver Spring, Maryland 20910, USA  
Phone: (301) 589-3300; Fax: (301) 589-5175  
Website: [www.musictherapy.org](http://www.musictherapy.org)  
E-mail: [info@musictherapy.org](mailto:info@musictherapy.org)

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