



The State of Play

For neurodivergent people in Aotearoa New Zealand

INCLUSION AND EXCLUSION IN SPORT, ACTIVE RECREATION AND PHYSICAL ACTIVITY

Sport can be one of the best places for people of all ages to build confidence, friendships, identity, fitness and belonging. It can also be one of the places where difference is most quickly misunderstood.

For neurodivergent people, the issue is often not whether they are physically able to take part. Many are able, motivated, skilled, competitive, creative and deeply interested in sport or movement. The problem is more often the environment around the activity: how instructions are given, how pressure is managed, how groups are organised, how mistakes are treated, how sensory demands are handled, and whether coaches and clubs understand different ways of learning, communicating and participating.

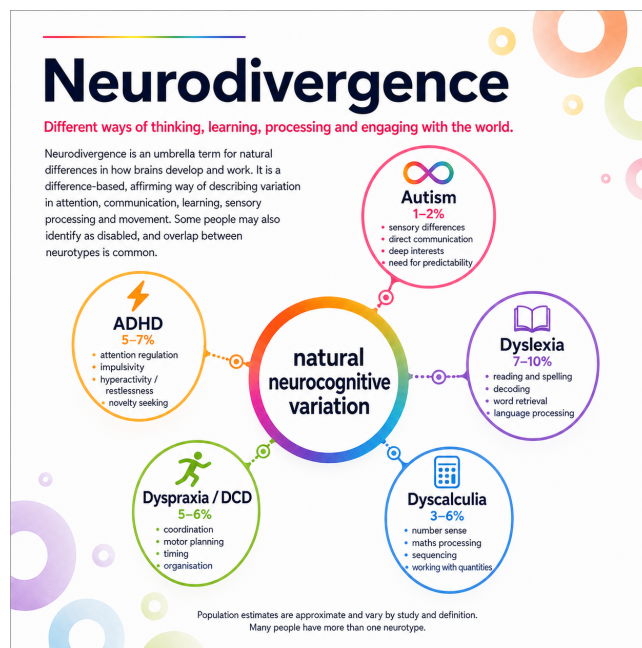
This paper briefly looks at what we know about the inclusion and exclusion of neurodivergent people in sport, active recreation and physical activity. It focuses on Aotearoa New Zealand where evidence is available, while drawing on international research because the local evidence base is still developing. The overall picture is clear:

Neurodivergent people want opportunities to participate, but many face avoidable barriers. Those barriers are not just individual challenges. They are also social, sensory, organisational and cultural. That means many of the solutions are practical and achievable at every level of sport.

WHAT DO WE MEAN BY NEURODIVERSITY AND NEURODIVERGENT?

‘Neurodiversity’ is an umbrella term that describes the natural differences in how people’s brains work. Every human has a unique neurological makeup, making us all neurodiverse. Within this, ‘neurodivergent’ refers to brain function and behavioural traits that differ from what is typically expected by societal norms. This includes autism, ADHD, dyslexia, dyspraxia/developmental coordination disorder, Tourette’s/tics, sensory processing differences, learning differences and other overlapping profiles.

Neurodivergent traits often overlap and some estimates put the percentage of people with neurodivergent traits as 15-20%. These differences are not problems to be fixed, they are natural variations in how people think, learn, and interact with the world. Many people are not formally diagnosed, especially girls, women, Māori, Pacific peoples, adults, and people whose difficulties have been masked or misunderstood.



It is clear that neurodivergent traits exist throughout all levels of sport, and most neurodivergent traits remain undiagnosed or undisclosed.

But coaches **do not need to know** whether or not there is a diagnosis. What matters is whether the coach can identify what helps that person to participate and thrive.

DISABILITY, DIFFERENCE AND THE SOCIAL MODEL

The social model of disability is used in Aotearoa New Zealand. The social model recognises that disability happens when environments, systems, attitudes and expectations create barriers. This is a useful way to understand neurodivergent participation in sport. A person may be able to run, jump, throw, swim or skate. But they may still be excluded if the environment is chaotic, instructions are unclear, feedback is shaming, sensory demands are overwhelming, or team culture punishes difference.

The question then becomes:

'What barriers are stopping this person from participating well, and what can we change?'

WHAT DO WE KNOW ABOUT INCLUSION IN SPORT IN AOTEAROA NEW ZEALAND?

New Zealand already recognises that disabled people experience inequity in play, active recreation and sport. Sport NZ's Disability Plan aims to improve wellbeing by addressing inequalities in sport and physical activity, especially for disabled tamariki and rangatahi. Sport NZ has also reported that disabled young people participate less across a range of sports and activities, and that disabled adults spend less time participating in a given week than non-disabled adults.

More recent Sport NZ reporting shows progress in the sector, including more adapted activities, inclusion training, accessible facilities and tailored programmes. However, disabled people still participate less often and have poorer experiences than non-disabled people.

There is also emerging New Zealand academic work on ableism in sport and recreation. Carroll and colleagues examined ableist attitudes in Aotearoa New Zealand sport, physical education and recreation settings. Their work shows that barriers are not only practical, they are also cultural. Disabled young people can be marginalised when sport systems treat non-disabled participation as the default and expect everyone else to fit around it.

For neurodivergent people specifically, the New Zealand evidence is thinner. We do not yet appear to have a large, settled body of local research that tracks neurodivergent participation, exclusion, retention, belonging and coaching experience across community sport. But this does not mean we know nothing. New Zealand disability evidence, Sport NZ strategy, local ableism research, and international neurodivergence-specific studies all point in the same direction:

Participation is shaped by environments, expectations, relationships and support.

WHAT DOES INTERNATIONAL EVIDENCE TELL US?

International research gives a clearer picture of neurodivergent experiences in sport and physical activity. A recent qualitative meta-synthesis by Grahn reviewed studies on children with ADHD and autism in organised physical activity. It found that participation is shaped by many levels at once: the child's own experiences, motor skills and confidence; relationships with family, peers, coaches and teachers; and the wider environment.

Australian research by Edwards, Tutton and Gibbs is especially useful for Aotearoa New Zealand because of cultural and sport-system similarities. Their study of autistic adults and parents of autistic children found strong interest in organised physical activity, but also clear barriers. These included communication differences, sensory differences, physical difficulties, feeling excluded, and lack of autism awareness. Importantly, many autistic children and adults wanted more opportunities to participate than they currently had.

A scoping review by Okkenhaug and colleagues found that barriers and supports for autistic children and young people are complex and sit across many parts of life. Physical activity is not simply a matter of personal motivation. Family support, coach understanding, peer relationships, sensory environments, programme structure and social expectations all matter.

Research on developmental coordination disorder, also known as DCD or dyspraxia, adds another important layer. Purcell and colleagues found that children with DCD can have reduced physical capability, lower self-perception, less varied participation and declining motivation over time. CanChild's practical guidance makes the same point in everyday language: children with DCD may start out motivated, but become frustrated as sport becomes more skill-demanding, competitive and socially exposing.

Research has found higher rates of joint hypermobility and related connective tissue conditions among autistic and ADHD populations. A 2025 systematic review estimated that hypermobility spectrum disorders or Ehlers-Danlos syndromes were present in 39% of autistic people in studies using clinical assessment.

Research has found connections between hypermobility, proprioception, the autonomic nervous system, pain and emotional regulation. One study found that neurodivergent adults were almost three times as likely to have generalised joint hypermobility and reported more musculoskeletal pain and orthostatic intolerance, including symptoms such as dizziness on standing. More recent work proposes that less reliable signalling from hypermobile joints may increase the effort involved in coordinating movement and regulating physical and emotional responses.

Hypermobility may also provide advantages in activities where greater range of movement supports technique or performance, including dance, gymnastics, diving and some forms of swimming. However, the evidence shows that these advantages may be accompanied by greater demands on strength, stability, proprioception and injury management.

Some children who look 'clumsy', 'lazy', 'uncoordinated' or 'not trying' may actually be working much harder than their peers to manage movement, timing, balance, planning, instructions, social demands and emotional pressure. They may also be able to push themselves further and be more resilient in the long run.



HOW EXCLUSION HAPPENS

Exclusion is not always obvious or intentional. It rarely looks like a coach saying 'you can't join'. More often, it is a slow process of making participation harder than it needs to be. People may stop attending because they are corrected publicly every week, because the team environment is too socially confusing or because the noise, lights, pace and instructions are overwhelming. A parent may stop enrolling their child because they are tired of explaining, apologising or managing misunderstandings.

Common barriers include:

- too many verbal instructions at once
- unclear expectations
- sudden changes without warning
- long periods of waiting
- noisy or crowded environments
- public criticism
- pressure to make eye contact
- sarcasm or indirect language
- uniforms or equipment that create sensory distress
- whistles, lights, heat, touch or contact
- unstructured social time
- bullying or teasing
- coaches interpreting overload as bad behaviour
- parents not knowing how to share useful support information
- clubs not having a simple way to adapt

These barriers can affect different neurodivergent people in different ways. For someone with ADHD, the hardest part might be waiting, impulse control, emotional regulation or tracking long instructions. For an autistic person, it may be unpredictability, sensory overload, social confusion or sudden changes. For someone with dyslexia, written instructions or fast-moving tactical information may be difficult. For someone with DCD/dyspraxia, motor planning, balance, timing and confidence may be central. For many people, these experiences overlap.



The result is that exclusion - both intentional and unintentional - is a common experience for neurodivergent people.

WHEN INCLUSIVE PRACTICES FALLS SHORT

Some coaches and clubs believe they have inclusive practices, but while some of these give neurodivergent participants a place in the group, they do not provide the same opportunities to belong, develop and contribute. Examples of these practices include:

- regularly giving them equipment, scoring or helper roles while others train or compete
- offering praise for attendance while recognising other participants for skill, effort and progress
- avoiding challenge, responsibility or feedback because of assumptions about what they can manage
- publicly identifying those needing support through different-coloured bibs, labels or designated areas
- placing them permanently in an easier or separate group
- using them as last-minute substitutes
- including them in general training but excluding them from development or high-performance sessions without clear criteria
- making decisions on inclusion without asking the participant or their family what would help

Some roles or adaptations may be appropriate when the participant chooses them and they support their involvement. Practices that single people out, restrict their opportunities or give them a lesser place in the group should be avoided.

Good practice provides meaningful opportunities to learn, contribute and progress, and helps each participant feel valued as part of the group.

THE ROLE OF PARENTS, WHĀNAU AND LIVED EXPERIENCE

Parents and whānau often hold essential knowledge. They may know that a child needs notice before changes, struggles with whistles, needs to arrive early, finds bibs distressing, takes language literally, needs help joining groups, or shuts down after public correction.

But parents may also be exhausted from having to explain their child repeatedly. They may fear being seen as demanding. They may have had negative experiences with schools, clubs or services. A simple, respectful process for gathering 'what helps this participant' information can prevent many problems. Lived experience should also shape programme design. Neurodivergent participants, parents, older youth, adults, coaches and athletes can all help identify what actually works.

International advocacy and policy activity increasingly points to the need for neuroinclusive practice, better data, better training and involvement of neurodivergent people in sport decision-making.

WHAT GOOD PRACTICE LOOKS LIKE

A recurring message from the literature and practical sport guidance is that coaches do not need to know everything about autism, ADHD, dyslexia or dyspraxia, nor do they need to know whether there is even a diagnosis, but they do need practical tools. Good neuroinclusive practice depends on clubs and organisations creating environments that are flexible enough to accommodate different ways of learning, communicating and participating. Coaches also need the confidence and practical tools to put this into practice.

A good neuroinclusive sport environment includes:

- leadership from clubs and organisations, so responsibility does not rest with individual coaches alone
- clear, concrete communication, with one instruction at a time where helpful
- demonstrations and visual supports alongside verbal explanations
- predictable routines, clear session structures and advance warning of transitions or changes
- sensory awareness, including attention to noise, touch, equipment, uniforms, heat and crowded spaces
- private checks for understanding and feedback that the participant can use
- flexibility in how people learn, communicate and take part
- opportunities for regulation breaks without embarrassment or penalty
- clear roles during waiting time and unstructured parts of the session
- realistic expectations that recognise different rates and patterns of development
- respectful partnerships with parents and whānau
- positive peer relationships and a sense of belonging
- safe and discreet ways to ask for help



These practices support neurodivergent participants and also improve the experience for anxious people, late developers, new players, people who speak English as an additional language, and many others.

These changes are not only helpful for neurodivergent participants, they improve coaching for everyone.

A PRACTICAL MODEL FOR NEURODIVERGENT INCLUSION TRAINING IN SPORT

Coaches need practical tools, confidence, local support and access to more specialist advice when they need it. Clubs also need leadership support so that inclusion is not left to one committed coach or parent. We propose a layered approach.

The first layer is system alignment. Neurodivergent inclusion should connect with existing sport structures rather than sit outside them. This means aligning with Sport NZ's participant-centred coaching approach, Balance is Better, quality sport environments, disability inclusion work, and regional initiatives such as Positive Vibes Only.

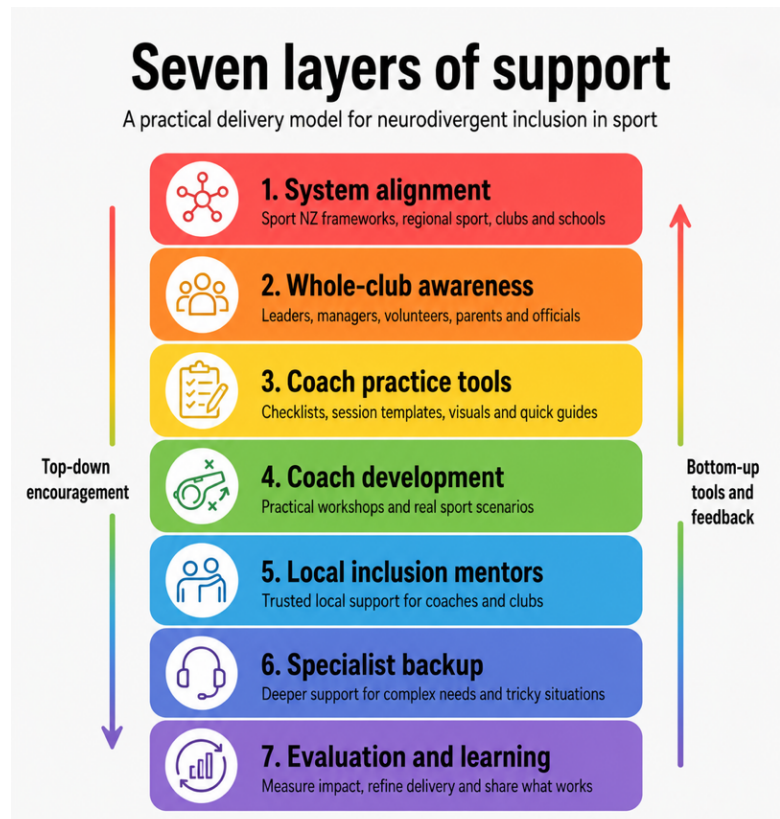
The second layer is whole-club awareness. Coaches are important, but they are not the only people who shape a participant's experience. Committee members, coordinators, team managers, referees, parents, volunteers and other players all affect whether a neurodivergent person feels welcome, understood and able to return. Short awareness resources can help the whole club understand that neurodivergent participants may learn, communicate, regulate, move and respond to pressure differently.

The third layer is practical coach support. Coaches need simple tools they can use immediately: clear session plans, short instruction methods, visual supports, sensory checklists, transition warnings, feedback tips, behaviour response guides, and a simple way to ask parents or participants what helps.

The fourth layer is coach development. Workshops should focus on real sport situations: what to do when a participant appears not to listen, becomes overwhelmed, refuses to join in, reacts strongly to feedback, struggles with team dynamics, or leaves after one session. Coaches need to understand how to adapt communication, reduce avoidable pressure, build predictability and create a stronger sense of belonging.

The fifth layer is local mentoring. Some coaches will need more than written resources. A trained local inclusion mentor could support several teams or clubs by observing sessions, helping coaches reflect, adapting tools to the sport, and linking back to specialist advice when needed. This creates local capability and avoids making every challenge dependent on external experts.

The sixth layer is specialist support. Some situations will need more in-depth advice, especially where there are complex support needs, safeguarding concerns, high anxiety, sensory distress, conflict, repeated drop-out or uncertainty about whether a setting is suitable.



The final layer is evaluation. A good training model should measure whether it changes practice, not just whether people attended. Useful measures include coach confidence, participant belonging, attendance, retention, parent and whānau feedback, club confidence, number of adaptations used, and whether coaches continue using the tools after the pilot. The model should also test which delivery formats work best: in-person workshops, short videos, printable resources, apps, online modules, mentor visits, group problem-solving sessions and follow-up clinics.

This approach works from both directions. From the top down, sport organisations can endorse the model, include it in coach development pathways and encourage clubs to take part. From the bottom up, coaches, parents, mentors and participants get practical tools that make change possible in ordinary weekly sessions.

Neurodivergent inclusion should become part of ordinary quality coaching: supported from the top, made effective by the coaches, and continually reviewed and improved.

THE DATA GAP

A major issue is data. Sport systems often collect information about age, gender, ethnicity, location and sometimes disability. They do not always collect useful information about neurodivergence, hidden disability, sensory barriers, communication needs, or why people leave. This creates a problem.

If people leave quietly, the system may assume they were not interested. If parents stop enrolling children, clubs may not know why. If coaches are struggling, organisations may not know what training would help.

New Zealand needs better local evidence about neurodivergent participation in sport and recreation. This should include participation rates, and metrics for experience, such as belonging, confidence, retention, parent trust, coach confidence, sensory fit, social safety and whether participants want to return.

WHERE AOTEAROA NEW ZEALAND CAN LEAD

Aotearoa New Zealand has an opportunity to build a practical, all-neurotypes approach to sport inclusion. This would recognise that all people are different and would support coaches to ask practical questions:

- How does this person learn best?
- What helps them feel safe enough to participate?
- What makes the environment harder?
- What communication works?
- What does overload look like?
- What does confidence look like?
- What helps them come back next week?

This approach also fits with wider quality sport principles. Good neuroinclusive coaching is not soft or unambitious. It does not mean lowering standards. It means making the pathway to learning clearer, fairer and more usable.

THE STATE OF PLAY

The state of play is mixed. There is growing recognition that disabled and neurodivergent people are missing out on quality sport and active recreation experiences. There is strong international evidence that autistic people, children with ADHD, people with DCD/dyspraxia and other neurodivergent participants face barriers that are practical, social, sensory and organisational.

There is also clear evidence that many want to participate more and that neurodivergent people can gain a particularly broad range of benefits from sport. Aside from the general health and fitness benefits, it can also improve areas that can have a greater effect on daily life for some neurodivergent people, including executive functioning, emotional regulation, psychological wellbeing and social connection. Research involving children and young people with neurodevelopmental conditions has found meaningful benefits across these areas, with some mental health effects appearing stronger than those generally reported in neurotypical populations.

In Aotearoa New Zealand, Sport NZ has already identified disability inequities in participation and experience. Local research on ableism shows that sport and recreation systems can still privilege non-disabled ways of participating. Many coaches stick to what they grew up with, using training systems that focus on performance and allocate resources to selected early developers with neurotypical behaviours. This will take time to change, but it is clear that sporting organisations and schools are keen to do better, to improve their inclusive practices.

To help to achieve this, we need support that is specifically focused on neurodivergent people across community sport, along with evidence of impact that can help to continually improved this.

Neurodivergent inclusion in sport should not be treated as a niche issue or only as disability access. It is about quality coaching, participation, wellbeing, and community inclusion. And most of the changes needed are small, practical and easily achievable.

DIVERGENCE

Divergence is a Waikato-based charitable company (Registered Charity CC64539) which specialises in neurodivergence as a collection of interconnected neurodevelopmental conditions. It provides evidence-led psychological services, training and advice for individuals, whānau, medical professionals, schoolteachers, companies and community organisations.



Divergence's charitable purpose includes providing access to affirming, evidence-informed support for neurodivergent individuals and whānau; creating spaces for identity, connection and wellbeing through interest-based groups and shared resources; advancing education and professional development in neurodiversity-affirming and culturally safe practice; and supporting systemic change to remove barriers to participation.

More information on Divergence can be found at www.divergence.co.nz.

Divergence partners with organisations and funders who can help us to achieve this purpose.

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