

PART 1 OF 2

THE ENVIRONMENT AROUND FOOD

HOW LIGHT, NOISE, SMELL AND SOCIAL
EXPECTATIONS INFLUENCE EATING

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Space to Breathe Therapy

The Environment Around Food

How Light, Noise, Smell and Social Expectations Influence Eating - Part 1 of 2

Introduction

When we think about eating, we often focus on the food itself. We talk about nutrition, recipes, portion sizes and healthy choices. Yet one of the biggest influences on our eating experience is something we rarely stop to consider - the environment around us.

Have you ever sat down to a meal in a busy restaurant and found yourself unable to concentrate on your food because of the noise around you? Have you lost your appetite because of a strong smell, bright lighting or a crowded room? Perhaps you have noticed that you eat more comfortably at home than you do in unfamiliar places.

For many people these experiences are occasional. For autistic people, people with ADHD, those with sensory processing differences or individuals living with ARFID, they can be part of everyday life.

Eating is not simply about chewing and swallowing. It requires the brain to process an extraordinary amount of sensory information at the same time. Every light, sound, smell, texture, movement and social interaction competes for the brain's attention while we are trying to recognise hunger, enjoy food and respond to the people around us.

Understanding the environment around food allows us to move away from asking, "Why will they not eat?" and towards a far more helpful question:

"What is happening around them that might be making eating difficult?"

That small shift in perspective can transform the way we support children, teenagers and adults.

My Thoughts

As someone who is both autistic and has ADHD, I have always known that where I eat can be just as important as what I eat.

There are places where I can enjoy a meal without giving it a second thought. Then there are environments where my nervous system is working so hard to process everything around me that eating becomes almost impossible.

For years I believed this meant I was simply being difficult.

Why could I not ignore the background music when everyone else seemed able to? Why did certain cafes leave me feeling exhausted before I had even looked at the menu? Why did the smell of different foods mixed together make me lose my appetite?

Learning about sensory processing completely changed my understanding.

Nothing was "wrong" with me. My nervous system was simply taking in far more information than I realised.

I now see the same pattern in many of the people I support. Parents often tell me their child eats well at home but refuses food at family gatherings. Adults describe avoiding restaurants because they leave feeling overwhelmed rather than relaxed.

When we understand the role the environment plays, these experiences begin to make sense.

Eating Requires the Nervous System to Feel Safe

One of the most overlooked aspects of eating is the importance of feeling safe.

Our nervous system is constantly asking one simple question:

“Am I safe enough to relax?”

When the answer is yes, the body can focus on digestion, appetite and enjoying food. When the answer is no, even if there is no actual danger, the brain shifts its attention elsewhere.

Instead of focusing on eating, it begins monitoring the environment. It notices:

- The loud conversation at the next table.
- The flickering light overhead.
- The smell of cleaning products.
- The scraping of cutlery.
- The movement of people walking past.
- The uncomfortable chair.
- The expectation to make conversation.

Each of these may seem insignificant on its own. Together, however, they can become overwhelming.

The brain is trying to keep us safe before it allows us to focus on eating.

Understanding the Window of Tolerance

In therapy we often talk about the Window of Tolerance - the zone in which our nervous system feels calm, connected and able to cope with everyday demands.

When we are within this window, eating usually feels manageable. We can notice hunger, enjoy conversation and respond flexibly to our surroundings.

When we move outside this window because of sensory overload, stress or anxiety, eating often becomes much harder.

Some people lose their appetite altogether. Others eat quickly just to escape the situation. Some avoid unfamiliar environments completely.

Understanding this helps us appreciate that eating difficulties are not always about the food. They are often about the state of the nervous system.

Understanding the Brain

The brain is constantly filtering thousands of pieces of sensory information every second.

For many people, this filtering happens automatically. Background sounds fade into the distance, lights become less noticeable and the smell of coffee no longer dominates the room.

For people with sensory processing differences, this filtering system may work differently. Instead of fading into the background, every sensation competes equally for attention.

Imagine trying to read a book while someone is:

- Playing music loudly.
- Flashing a torch in your eyes.

- Spraying perfume.
- Tapping repeatedly on the table.
- Asking you questions every few seconds.

You might still manage to read, but it would require enormous effort.

For some people, this is what eating in a busy environment feels like.

Lighting Can Change the Eating Experience

Lighting has a much bigger impact than many people realise.

Bright fluorescent lights can feel harsh and uncomfortable. Lights that flicker may be distracting, even if other people do not consciously notice them. Dim lighting can make it difficult for some people to recognise food clearly.

Natural light often feels calmer because it is softer and more predictable.

Many autistic people describe feeling far more relaxed eating in spaces with gentle lighting than in brightly lit restaurants or school dining halls.

Small environmental adjustments can therefore have a surprisingly positive effect.

Noise: The Invisible Barrier

Noise is one of the most common sensory challenges around eating.

Restaurants are full of competing sounds:

- Conversations.
- Music.
- Cutlery.
- Coffee machines.
- Plates being stacked.
- Chairs scraping.
- Children playing.
- Kitchen equipment.

Most brains naturally decide which sounds deserve attention. For someone with auditory sensitivity, every sound may feel equally important.

Instead of enjoying the meal, their brain is working hard simply to process the environment. This can leave someone feeling exhausted long before the food arrives.

For children, noisy school dining halls can be particularly challenging. Some may eat very little at lunchtime, not because they dislike the food, but because the environment feels overwhelming.

Smell: More Powerful Than We Think

Our sense of smell is closely linked with memory and emotion.

A familiar smell can bring comfort. A strong or unexpected smell can trigger discomfort almost instantly.

Now imagine walking into a food hall where you can smell fish, garlic, coffee, cleaning products, perfume, hot oil and sweet pastries all at the same time.

For someone with heightened sensory awareness, these competing smells can become overwhelming.

Some people lose their appetite before they have even chosen what to eat. Others feel nauseous because the sensory load is simply too great.

Understanding this helps us recognise why someone might prefer eating in a familiar environment with predictable smells.

Temperature and Physical Comfort

Comfort extends far beyond the plate.

A room that is too hot can make eating uncomfortable. A room that is too cold can increase physical tension. The chair may feel hard. The table might be too high. Clothing labels may itch. The texture of a napkin might feel unpleasant.

Although each factor seems small, together they contribute to the overall sensory experience.

When the brain is already processing a great deal of information, these additional sensations can become surprisingly significant.

Everyday Examples

Think about these situations:

A child who happily eats breakfast at home but refuses lunch at school.

An adult who enjoys cooking but avoids restaurants.

Someone who always sits in the same seat at the dinner table because it feels safer.

A teenager who appears “fussy” at family celebrations but eats well once everyone has gone home.

These experiences are often interpreted as behavioural choices. Very often, they are sensory responses.

Understanding the difference changes the way we respond.

Instead of encouraging someone to “just get on with it,” we begin asking how we can make the environment feel more comfortable.

Research Snapshot

Research increasingly demonstrates that sensory environments influence appetite, food acceptance and mealtime participation. Studies involving autistic children and adults have shown that noise, lighting, smell and visual complexity can significantly affect eating behaviour.

Neuroscience also tells us that the nervous system prioritises safety. When sensory input becomes overwhelming, the brain naturally shifts resources towards managing the environment rather than supporting digestion and appetite.

This growing body of evidence reminds us that successful eating is about far more than the nutritional value of the food. It is also about creating environments where people feel calm, regulated and able to engage with eating.

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This resource is educational and is not a substitute for individual medical, nutritional or mental-health advice. Seek appropriately qualified support if eating difficulties affect health, growth, hydration or daily life.