In recent years, wellbeing has become a buzzword in architecture and building design. From high-end residential projects to commercial offices, the promise of healthier, happier occupants is a powerful marketing tool. But where does genuine *wellbeing design* end and clever edinburgharchitecture.co.uk *marketing spin* begin? Especially when it comes to retrofit projects in tenements and pre-war housing — where I've spent the last 12 years focusing on upgrading building fabric and systems — it's crucial to separate robust, regulated interventions from vague claims that can mislead both clients and occupants.

Ventilation and Indoor Air Quality: The Most Regulated Health Factor in Buildings

Of all the factors influencing occupant health, **ventilation and indoor air quality (IAQ)** remain the most strictly regulated. Good ventilation reduces risks from indoor pollutants, prevents moisture buildup causing condensation and mould, and ensures adequate oxygen levels during occupancy. The UK Government's Approved Document F (ADF) sets out minimum ventilation standards applicable in England and Wales, while the *Scottish Building Standards* take a slightly different numerical approach—but the underlying principles are consistent: provide sufficient fresh air, control moisture, and minimise pollutant concentrations.

It's worth highlighting that ventilation isn't only about mechanical systems or fancy air filters. It's a complex balance encompassing:

- **Airtightness:** reducing uncontrolled leaks that cause heat loss but can also prevent beneficial ventilation.
- **Intentional ventilation:** mechanical extract fans, supply vents, trickle vents, and window openings.
- **Moisture management:** preventing condensation which promotes mould growth and causes indoor air quality issues.

Approved Document F vs Scottish Building Standards

Aspect Approved Document F (England & Wales) Scottish Building Standards Approach Prescriptive details with ventilation rates in litres per second Performance-based, allowing alternative ventilation strategies with similar principles Residential Minimum Ventilation Rate Extract ventilation at 15 l/s from wet rooms; background ventilation via trickle vents Prescribes rates but can vary based on dwelling airtightness and heat recovery use Focus Preventing indoor air pollution and moisture buildup Same focus but with a greater emphasis on energy efficiency balance and whole-building performance

As you can see, while the exact numbers differ slightly, both regulatory frameworks underline the necessity of ensuring controlled, adequate ventilation rather than relying on accidental or uncontrolled leaks.

Airtightness vs Accidental Ventilation in Retrofit Projects

A common pitfall in retrofit projects—especially in older, draughty tenements—is focusing solely on improving airtightness to enhance energy efficiency, then neglecting how fresh air gets inside. Unintentional leaks through gaps and cracks offer minimal, unreliable ventilation. When these are sealed without installing or upgrading proper ventilation systems, occupants are left with poor air quality.

"Accidental ventilation" can lead to:

- Inconsistent airflows that vary with wind and weather conditions.
- Moisture hotspots because air exchange is patchy and doesn't reach all rooms.

- Increased risk of condensation, damp, and mould growth.

Ask any experienced retrofit coordinator: sealing for energy efficiency must be balanced with ventilation upgrades compliant with regulations, for occupant health and building durability.

Symptoms of Inadequate Ventilation: Moisture, Condensation, and Mould

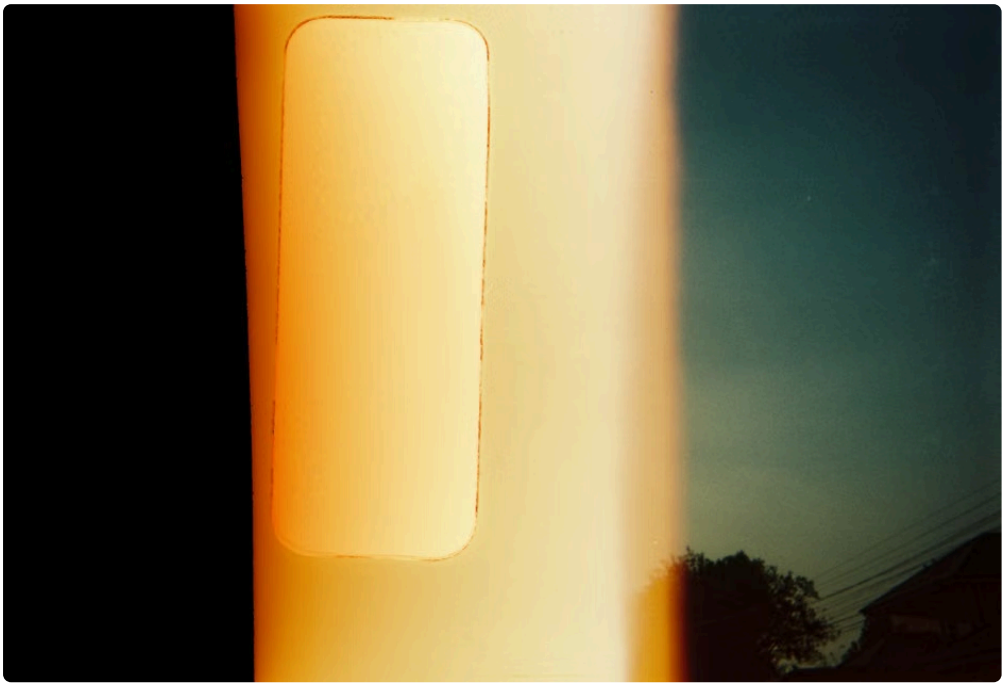
In my experience working with Edinburgh pre-war properties, these three often signal ventilation gaps more than insulation problems alone:

1. **Moisture accumulation** on surfaces, especially cold ones like windows, reveals insufficient air exchange removing humidity.
2. **Visible condensation** inside windows or behind furniture points to persistent high humidity without ventilation relief.
3. **Mould growth** on walls, ceilings, or timber often follows prolonged moisture problems and can impact respiratory health.

Fixing these symptoms requires carefully designed ventilation solutions—not just installing a "wellbeing" branded air freshener or marketing a space as somehow "heal-your-stress" certified.

Limits of Wellbeing Architecture: Avoiding Medical Claims

It drives me mad when I hear claims like "this building treats depression" or "this home improves respiratory illnesses" simply because it includes certain features marketed as 'wellness'. Such statements verge on medical advice, veering out of the architectural remit and into dangerous territory.



Companies like Releaf provide good examples of responsibly educating users about health products without making unsubstantiated medical claims. In building design, architects and technologists have a duty to:

- Focus on *creating conditions that support health*, such as good ventilation, thermal comfort, and natural light.
- Steer clear of implying a building is a cure or treatment for health conditions.
- Make clear what has been regulated and tested versus what is a marketing feature.

Regulated vs Unregulated Products: An Important Distinction

Sometimes marketing-led wellbeing products flood the market: “smart” air purifiers, aromatherapy diffusers, wellbeing lighting, vibration-enhanced flooring, etc. While they may enhance comfort or atmosphere, they often lack recognised health-related certification or legal regulation.

Contrast this to *regulated building interventions* such as:

- Ventilation systems installed per Approved Document F or Scottish standards.
- Material selections with documented low volatile organic compound (VOC) emissions.
- Moisture control measures attested by building physics analysis and post-occupancy monitoring.

The key takeaway? Use tools like cheap indoor air monitors and, importantly, carbon dioxide (CO2) measurement as objective proxies for ventilation adequacy rather than relying on subjective wellbeing claims alone.

Carbon Dioxide as a Proxy for Ventilation Adequacy

CO2 is exhaled by occupants, so indoor CO2 concentration rises if ventilation is insufficient. Elevated CO2 levels correlate with discomfort, impaired cognitive function, and poorer overall IAQ. I always carry a small pocket CO2 monitor on site—and encourage clients to do so after handover—for tangible feedback on indoor air quality.

Typical guidelines suggest:

- **Below 800 ppm:** Good ventilation.
- **800–1000 ppm:** Acceptable.
- **Above 1000 ppm:** Warning sign for inadequate ventilation.

For retrofit projects, measuring CO2 levels in main living and sleeping rooms gives direct evidence of ventilation performance, helping differentiate real wellbeing improvements from superficial marketing claims.

Wellbeing Design and Honest Marketing: Bridging the Gap

Companies like Magnific excel in integrating evidence-based wellbeing design without overselling or slipping into pseudoscience. Their carefully curated imagery (image credit: Magnific) shows real, lived-in spaces where ventilation, daylight, thermal comfort, and acoustics work seamlessly to support occupant health.

As architects and retrofit coordinators, we must:

1. Ground wellbeing aspirations firmly in building science and statutory standards.
2. Explain clearly to clients the scope and limits of what buildings can achieve for health.
3. Use measured data—not just anecdotes or marketing buzzwords—to validate post-occupancy performance.
4. Advocate against value-engineering choices that cut basic acoustic or ventilation measures in the name of cost savings.

Conclusion

Wellbeing architecture has immense potential to improve quality of life—but it must be rooted in regulated, evidence-based interventions like proper ventilation and moisture control. The line between wellbeing design and marketing can blur, especially in retrofit scenarios where uncontrolled leaks, damp, and mould often masquerade as "comfort issues."

By prioritising robust ventilation measures aligned with Approved Document F or Scottish standards, and by using objective tools such as CO2 monitors, we can deliver real occupant health benefits. And by avoiding overblown medical claims, we maintain professional integrity and set realistic expectations.

In the end, buildings support wellbeing *best* when they are designed and commissioned with the right balance of science, care, and honesty—far beyond the surface gloss of marketing.