A new study conducted by researchers from Nanyang Technological University explored the positive aspects associated with planting greenery on the outside of buildings. According to their findings, vertical greenery may be an effective way to protect against stress.

"With urbanisation, more people are expected to be living in urban areas globally in future," said researcher Lin Qiu. "It is thus more important for urban city planners and architects to understand factors that can contribute to healthy living, as urban planning can have a direct impact on quality of life for the population."

### Maintaining healthy stress levels

For the study, the researchers had over 100 participants involved in a virtual reality-based experiment. Both groups used virtual technology to walk down a simulated street for five minutes; one group saw a street with paintings of greenery, while the other group saw a street with planted greenery on buildings, balconies, and storefronts. The team monitored the participants’ heart rates during the experiment and had them complete questionnaires about their moods to determine how the experience impacted their stress levels.

The participants that walked down the painted streets had higher heart rate variability, which is an indicator of stress. They also reported fewer positive
emotions. Conversely, seeing real planted greenery had the opposite effect; participants in this group had more stable heart rates and also reported more positive emotions overall.

The researchers explained that these findings are important for all consumers, but particularly those who live in urban areas and aren’t exposed to a lot of greenspaces. Having vertical greenery, when possible, can help keep consumers’ stress levels at bay and increase overall well-being.

“Our findings have important practical implications for city planning and design, especially for high density urban areas that face land constraints,” said researcher Sarah Chan.”It provides evidence that vertical greenery systems, which make use of vertical structures above ground, may help moderate the detrimental consequences of stress.”