

SOUND MASKING SOLUTIONS

IN HOSPITAL
ENVIRONMENTS





SOUND MASKING SOLUTIONS IN HOSPITAL ENVIRONMENTS

Treating the Whole Patient

Improving Patient Satisfaction

The mission of many hospitals has expanded to not only treat a patient's physical symptoms, but their emotional health as well. Press Ganey, a medical research and strategic healthcare consultant group, has drawn direct correlations between a patient's level of satisfaction and the perception they've received high quality care; and when patients are more comfortable, that perception increases. As patient satisfaction becomes a greater focus, hospitals are exploring new ways to increase acoustic comfort and privacy.

While healthcare environments strive to provide patients with the best possible care, many remain extremely noisy spaces that make maintaining privacy difficult. Caregivers have several options for addressing unwanted noise disruptions. One solution is to utilize sound masking. The Qt X™ sound masking system creates an unobtrusive background sound designed to reduce distracting noise and mask confidential conversations.

Promoting Rest and Relaxation

Improving Medical Outcomes

Sleep is a critical part of the healing process; but disruptions from hallways and nurses' stations often prevent patients from getting the rest they need. Both excessive noise and the resulting lack of sleep top the list of patient complaints. Not only do loud hospital environments interrupt patient sleep; they also weaken immune systems, impacting recuperation.

Studies show that patients in rooms with sound masking find it helps shorten the time needed to fall asleep and prevents disrupted rest. In fact, sound masking has been shown to be the most significant effect in promoting ICU patients' sleep, with those in rooms equipped with the technology demonstrating a staggering 42.7% improvement in restfulness over those in rooms that are not.

Making Patients More Comfortable

Enhancing Patient Confidentiality

The Health Insurance Portability and Accountability Act (HIPAA) mandates how healthcare providers collect, store, and use personal health information, requiring the implementation of safeguards to protect patient privacy.

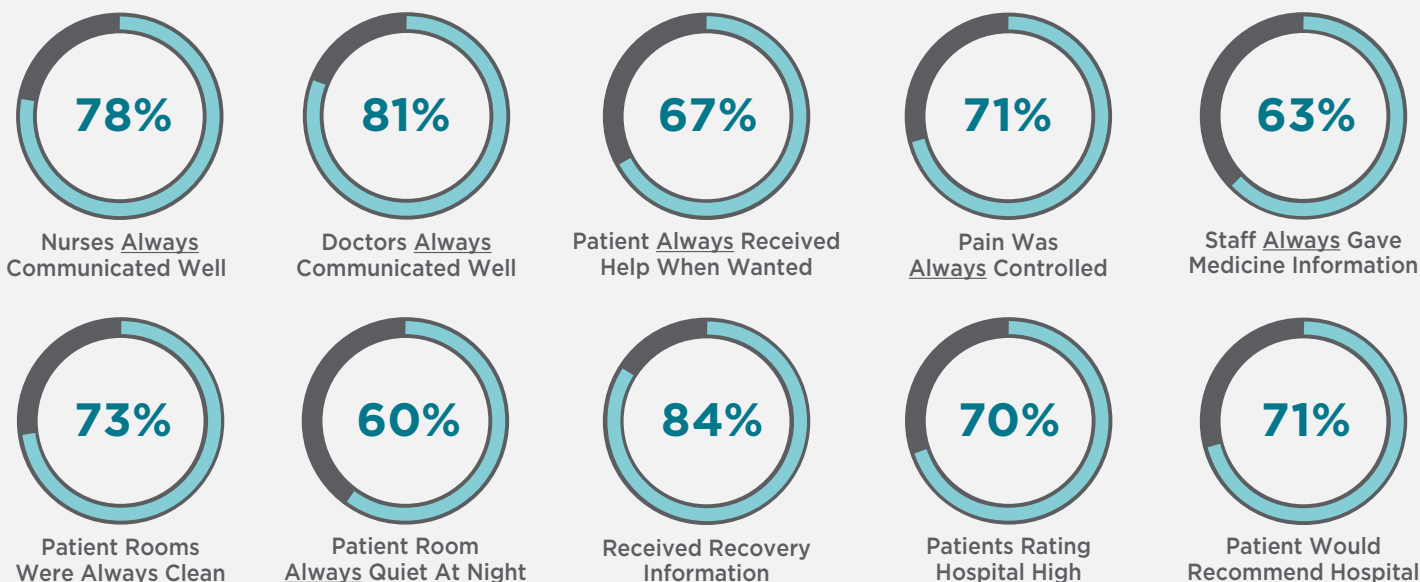
Patients feel more comfortable when they can confidentially speak with their provider. The ability to do so is particularly important in public spaces like reception areas and open pharmacy counters, where privacy is virtually nonexistent. If patients can overhear the discussions of others, they may not feel secure discussing their own issues with healthcare professionals for fear that the same thing could happen to them. By reducing speech intelligibility, Qt X makes patients feel more confident that privacy is being maintained while also safeguarding the mandated HIPAA requirements.

National HCAHPS Data Reveals

	Patients who reported that the area around their room was <u>always</u> quiet at night.	Patients who reported that the area around their room was <u>usually</u> quiet at night.	Patients who reported that the area around their room was <u>never</u> quiet at night.
HOSPITAL 1	56%	28%	16%
HOSPITAL 2	47%	34%	19%
HOSPITAL 3	52%	32%	16%
STATE AVERAGE	52%	33%	15%
NATIONAL AVERAGE	60%	30%	10%

Survey results are publicly available at: www.medicare.gov/hospitalcare
(Sample based on 3 randomly selected hospitals in the Boston metropolitan area on July 12th, 2013)

National Average HCAHPS Results





Reducing Noise, Improving Care — Building a Better Acoustic Environment

There are several simple ways hospitals can improve their acoustic environment.

- 1. Give each patient their own individual room.** This option significantly increases construction and operating costs and, in previously existing hospitals, reduces patient capacity resulting in reduced funding.
- 2. Add barriers and other sound blocking materials in public spaces.** This option increases construction costs and creates a less inviting space with less natural light and airflow, resulting in decreased comfort for patients and visitors.
- 3. Add sound masking.** This option is easily integrated into existing spaces, allows hospitals to keep spaces open for more natural daylight and airflow, and increases the ability for hospitals to use an inpatient room to house more than one patient. The simplest and most effective sound masking system designed for hospital environments is the Qt X sound masking system. This system provides a continuous background sound that reduces the impact of unwanted hospital noises and masks conversations, making the resulting environment feel more private and comfortable.



Managing healthcare facilities' acoustic environments by lowering noise levels and introducing appropriate levels of background sound to mask intruding noise can improve healthcare delivery.

“Acoustic Environment Technical Brief,” Green Guide for Health Care, <http://www.acentech.com>



Approximately four months after we installed the Qt X system, our hospital's post stay Press Ganey survey of 57 patients on the issue of 'noise in and around the room' showed a dramatic 33% increase in patient satisfaction.

BEN PETHE

Director of Facilities Management
Saint Thomas Hospital
Nashville, TN

Qt X Sound Masking

The Solution for Improving Patient Satisfaction

Cambridge Qt X sound masking helps providers address speech privacy and acoustic comfort issues in all areas within the hospital and can be installed in both new and existing facilities with minimal disruption.

Qt X sound masking improves acoustic conditions in hospitals around the globe and includes convenient features like emergency paging integration and audio inputs for background music.

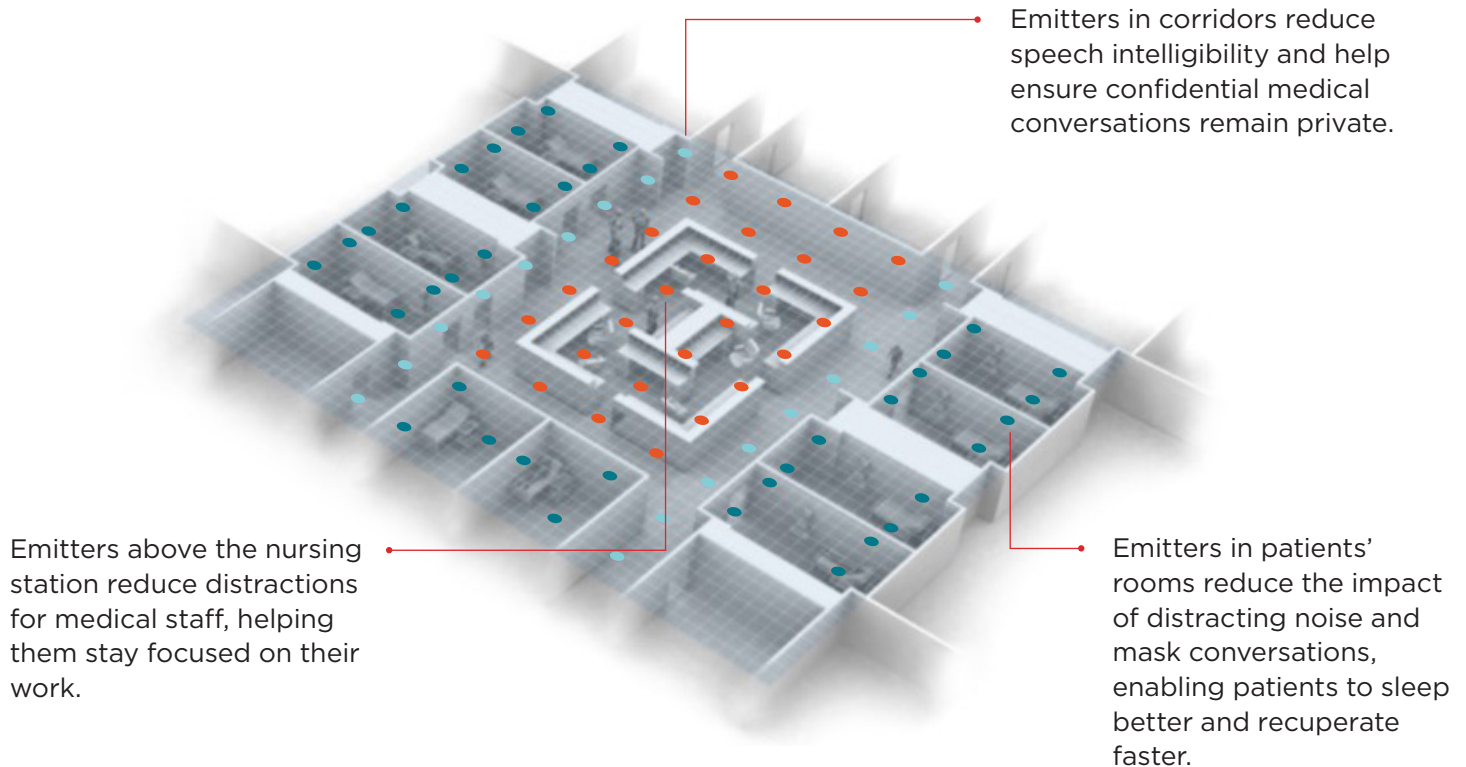
Qt X systems also provide the most uniform coverage and best isolation from room to room and throughout public areas.



QT X

MEDICAL FACILITY

Biamp's Qt X technology allows the installation of multiple sound masking zones, which can be adjusted independently according to each zone's specific sound-level requirement.



Private

- Patients' Rooms
- Doctors' Offices
- Exam Rooms
- Treatment Facilities
- Psychiatric Counseling Rooms
- Hospital Administration

Public

- Waiting Rooms
- Emergency Exam Rooms
- Patient Registration
- Business Areas
- Pharmacies
- Nurses' Stations

Zoning Flexibility

The Qt X system is designed to meet the unique acoustic requirements of any hospital space large or small. Individual zones can range from 100 square feet to 12,000 square feet (9.3 m² - 1,115 m²) to provide the appropriate sound levels.

- Zone 1: Corridors
- Zone 2: Nurses' Stations
- Zone 3: Patients' Rooms