Mr. B, a 68-year-old man with a seven- 
year history of lung cancer in remission, 
was admitted to the oncology unit for 
increasing dyspnea and extent of disease 
workup. He reported nonspecific symp-
toms that included shortness of breath 
on exertion and sometimes without ex-
erion, causing him to stop participating 
in some of his activities, difficulty sleep-
ing, and a lack of appetite. He also was 
worried about the cancer coming back. 
“Waiting and not knowing,” he said, was 
very stressful. Mr. B’s physician ordered 
supplemental oxygen at the rate of 5 L by 
nasal canulla and scheduled diagnostic 
imaging examinations, laboratory tests, 
and a possible bronchoscopy.

The morning after admission, Mr. B 
experienced significantly increased dys-
pnea. Because he was so short of breath he 
had postponed going to the bathroom as 
long as he possibly could and called for 
his nurse as he was leaving the bathroom. 
He was very apprehensive about his 
shortness of breath and appeared to be 
using a great deal of effort to breathe, tell-
ing his nurse “I can’t catch my breath.” To 
help ease Mr. B’s breathing, the nurse had 
him sit upright in the bedside chair and 
asked him to relax and breathe normally. 
However, Mr. B’s high level of anxiety, 
caused by his difficulty breathing and his 
fears about a possible lung cancer recur-
cence, made following instructions 
challenging. His entire body was tense, 
and he was expending needed energy 
by leaning forward, grasping the arms of 
the chair. Being told by the nurse to relax 
and breathe deeply had the opposite ef-
fect; Mr. B became even more anxious and 
dyspneic.

One of the resources available to the 
nursing staff in the hospital was a stress-
management nurse available to work with 
patients and families. Noticing that the 
nurse was on the unit, Mr. B’s oncology 
nurse described his situation and asked 
the stress-management nurse to visit Mr. 
B to see if stress reduction techniques 
might help improve his breathlessness.

Etiology

Dyspnea is a subjective sensation of 
breathing difficulty. It reflects patients’ 
reactions to the feeling of not being able 
to get enough air (Matthews, 2005). 
Risk factors are multiple and related to 
disease, treatment, and lifestyle events 
(Merck Manuals Online Medical Library, 
2007) (see Figure 1). The frequency of 
dyspnea in patients with cancer varies 
depending on the setting and extent of 
disease. The National Cancer Institute’s 
([NCI], 2007) review of the literature 
noted a study that reported 49% of a 
general cancer population experienced 
breathlessness and 20% rated it as mod-
erate to severe. Patients with advanced 
cancer experience this symptom more 
frequently and intensely than patients 
with limited disease. 

Studies have demonstrated that no 
direct relationship exists between dys-
pnea and the degree of impairment in 
lung function. Instead, the experience 
and intensity of dyspnea is influenced 
by patients’ behavioral styles and emo-
tional states. Breathing is influenced by 
behavioral control mechanisms in the 
cortical and subcortical centers in the 
brain, and anxiety, anger, and depres-
sion may lead to increased ventilatory 
effort and dyspnea. Patients who gener-
ally are independent and adaptable can 
tolerate ventilatory loads with relatively 
few symptoms of dyspnea, while others 
who are more dependent and anxious 
may experience severe dyspnea with 
relatively small increases in ventilatory 
impedance (American Thoracic Society, 
1999).

Assessment

No general agreement exists on what 
constitutes the best instrument for as-
sessing dyspnea. The multidimensional 
nature of dyspnea must be considered to 
obtain an accurate assessment. The eval-
uation of patients with dyspnea begins 
with a thorough history of the symptom. 
Symptom onset and quality, precipitating 
and relieving events, and responses to 
medications should be reviewed. Mea-
suring oxygen saturation can determine 
if patients are hypoxic. Physical findings 
may include tachypnea, use of access-
ory muscles with breathing, retraction 
of intercostal spaces, flaring of nostrils, 
clubbing of digits caused by chronic 
hypoxemia, cyanosis, pallor, confusion, 
restlessness, and difficulty concentrating 
(Matthews, 2005). Diagnostic tests may 
include chest imaging, computed tomog-
raphy, complete blood counts, and oxy-
gen saturation at rest and with exercise.