The symptoms of anxiety have been described since antiquity. Prior to the late 19th century, what we now consider to be components of anxiety (i.e., dizziness, nausea and lightheadedness) were referred to as specific diseases in their own right. It was not until the late 1800s that these symptoms were grouped into a common heading or syndrome. In fact, anxiety as a unitary construct did not appear until the mid 20th century.1 Anxiety is now viewed as a nonspecific term, covering a wide range of behaviors and experiences. It reflects a general state of arousal and is assumed to play an important role in everyday life, as well as in emergency situations.

Unfortunately, for many people, the symptoms of anxiety appear at contextually inappropriate times, leading to the development of a chronic disorder. Because of its many facets, anxiety is often divided into cognitive, somatic and behavioral elements. Thoughts associated with excessive anxiety include: irrational fears of impending doom; uncontrollable worrying over one’s health or body; and fears of particular places or social settings, objects, animals, insects or activities, such as performances.

Somatic elements of anxiety include generalized muscular tension, tension headaches, palpitations, shortness of breath, fatigue and vague digestive problems. Avoidance is a major behavioral manifestation of anxiety (Table 1). This article will deal with the most common anxiety disorder — social anxiety disorder.

Characterization of Social Anxiety Disorder

Social anxiety disorder is characterized by excessive anxiety on exposure to potential scrutiny or evaluation by others. This disorder, also known as social phobia, has been considered the “neglected” anxiety disorder.2 Recent epidemiologic studies have found a lifetime prevalence of about 13% and a 12-month prevalence of approximately 8%.3 After alcohol dependence and depression, it is the third most common psychiatric illness, affecting over 5% of the general population.4,5 These emerging data have led to increased interest in improving diagnosis and treatment. Despite its high prevalence, however, social anxiety is often underdiagnosed and untreated, leading to a legacy of morbidity.6
An awareness of our surroundings and potential threats from others is crucial to normal functioning. From childhood onward, we are taught to be cautious about strangers and new situations. Despite similar cultural and educational backgrounds, a substantial difference exists in individual responses to new circumstances, including social milieus. Cloninger, for instance, has classified individuals according to temperament, regarding their enduring tendencies to either seek out or avoid novelty. Among those who tend to avoid novel situations, the most severely inhibited may develop the full syndrome of social anxiety disorder — the extreme end of a spectrum of behaviors, which includes avoidant personality disorder and normal shyness. Some investigators suggest conceptualizing social anxiety disorder as a chronic neurodevelopmental illness.

Social avoidance reaches a syndromal level, by definition, when it leads to substantial social or occupational dysfunction. In many cases, the condition will include an early childhood history of school refusal. Adolescents may miss critical opportunities for acquiring social skills. In later career development, important chances may be declined in favor of positions where social contact can be avoided. Some will become shut-ins, isolated from their communities for fear of making fools of themselves.

Clinical Features

The current Diagnostic and Statistical Manual of Mental Disorders (DSM-IV) places importance on the symptoms of irrational or excessive fear in particular situations that negatively affect a person’s life. Table 2 outlines the diagnostic criteria for social anxiety disorder. There are important distinctions within the diagnosis of social anxiety disorder that need to be considered. Performance anxiety usually is quite specific to a situation, such as public speaking. Though this kind of anxiety can be quite debilitating, the individual who suffers from it tends to fare better in other social or occupational areas. Social anxiety disorder can encompass more than one situation; for example, affecting both public speaking and eating in restaurants. Finally, social anxiety that is generalized involves most situations in one’s life and tends to be the most severe form of the disorder.

Since high social anxiety is ingrained in an individual’s lifestyle, he/she is frequently unaware of the process underlying his/her problems. Elaborate patterns of avoidance are likely to have extended over years, involving spouses, relatives, friends and co-workers. The presenting complaint may, in fact, be marital discord or other relationship difficulties. If avoidance were not possible, the individual would try to endure the offending circumstance. It would be contemplated with dread and the attendant anxiety could culminate in a situational-bound panic attack. Because anxiety may not always be experienced with clear-cut, easily identified symptoms, individuals with particularly severe social anxiety may present with somatic symptoms, such as tension headaches, which worsen in anticipation of the feared activity. Likewise, panic-like symptoms may cause individuals to seek help for respiratory or cardiac conditions.
Taken as a whole, these somatic complaints lead to a high usage of medical resources, both in terms of multiple investigations and office visits.11

Finally, making a decision to visit the doctor may be the result of many factors, but it is the physician’s task to put the puzzle together. The physician will be called upon to move from general clues about individual temperament and life circumstances to more specific symptoms. It is essential to ask about an individual’s life, relationships at home and at work, substance history and daily routine. It is often helpful to enquire about a typical day, enumerating usual activities from the moment an individual awakens, with particular attention paid to patterns of social interaction. Does he/she only shop at odd hours, meet people only when bolstered by alcohol or other sedatives, or avoid eating in public places for fear of embarrassment?

Comorbidity
Approximately 80% of patients with social anxiety disorder have comorbid psychiatric diagnoses, including substance abuse and dependence, particularly alcohol and benzodiazepines.12 There is a fourfold increased risk of major depression in patients with social anxiety, as compared to the general population. One study found the incidence of alcohol problems in those presenting with social anxiety disorder to be around 16%.13 This is likely a conservative finding and underlines the importance of screening questions. A significant number of patients presenting with social anxiety will have a secondary anxiety disorder, particularly panic disorder with agoraphobia. Patients with comorbidity have an increased incidence of suicidal ideation and a history of attempts.9

### Differential Diagnosis
Social anxiety disorder needs to be distinguished from other anxiety disorders, as well as from other syndromes in which anxiety may be a prominent feature (Figure 1). Table 3 makes useful distinctions between the most common disorders presenting with anxiety symptoms. First on the medical decision tree is the exclusion of cardiorespiratory conditions, diabetes and hyper-
thyroidism. Next in the systematic evaluation is a screen for substance dependence or abuse, comorbid depression or other psychiatric conditions. Among these, the detection of psychosis is probably the most important, as its pharmacologic management is radically different from that of a primary anxiety disorder.

As in the interpretation of any psychopathology, symptoms of anxiety must be interpreted in context. The presence of a thought disorder with self-referential thinking or patently odd notions should point toward the possibility of psychosis.

Differentiating among anxiety disorders requires careful history-taking. Table 4 provides some screening questions. A fear of specific environmental stimuli (i.e., an excessive fear of snakes in a rural dweller who refuses to leave the house) invites the exploration of a specific phobia. Similarly, fears of contamination, coupled with washing rituals or a history of traumatic life events, would steer the examiner toward obsessive compulsive disorder or post-traumatic stress disorder (PTSD), respectively.

Differentiating social anxiety disorder, panic disorder with agoraphobia and generalized anxiety disorder can be complicated. Panic disorder presents as a fear of the panic symptoms themselves. Attacks are generally untriggered (i.e., they may wake a person from sleep), with patients often able to give a clear description of their first attack. Agoraphobia, in terms of avoiding public places, is perceived as an attempt to avoid a panic attack rather than a fear of embarrassment. Many times, a person with primary panic disorder will attend social situations with another person, which rarely alleviates the social phobic’s fears of experiencing a panic attack. As the symptoms of agoraphobia

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**Social Anxiety Disorder (Social Phobia)**

- Fear of behaving in such a way as to cause embarrassment or to be seen negatively by others in social or performance situations. This fear is intense and persistent, and occurs in one or more situations.
- Faced with social or performance situations, the person will experience marked anxiety that is endured and may result in a panic attack.
- The fear is regarded as excessive or irrational.
- The situation is either endured or avoided.
- This condition causes difficulties in social, occupational or relational spheres.
- Under the age of 18, the duration of the condition must be at least six months to be considered social anxiety disorder.
- Exclusions: symptoms cannot be due to substance abuse or medications; or to a general medical illness; or to another psychiatric diagnosis.
- If there is a general medical condition, the fear cannot be directly related to the medical condition (i.e., fear of embarrassment due to tremor of Parkinson’s disease).
- Specifier: “generalized” used if the fears tend to encompass most situations.

Social Anxiety Disorder

Patient with symptoms

Are they due to a general medical condition or are they secondary to substance use/abuse?

- Yes → General medical condition
- No → Substance abuse/dependence

Is it due to another psychiatric illness?

- Yes → Sudden onset of anxiety attacks out of the blue with fear of recurrence?
- No → Situational or triggered anxiety?

Sudden onset of anxiety attacks out of the blue with fear of recurrence?

- Yes → Anxiety in the form of constant worrying?
- No → Generalized anxiety disorder

Anxiety in the form of constant worrying?

- Yes → Social anxiety disorder
- No → With avoidance?

With avoidance?

- Yes → Panic disorder with agoraphobia
- No → Situational or triggered anxiety?

Situational or triggered anxiety?

- Yes → Triggered by social/performance situations?
- No → Obsessions or compulsions?

Triggered by social/performance situations?

- Yes → Obsessions or compulsions?
- No → Anxiety regarding a traumatic event?

Anxiety regarding a traumatic event?

- Yes → Acute stress disorder or post-traumatic stress disorder
- No → Adjustment disorder with anxiety

Obsessions or compulsions?

- Yes → Obsessive-compulsive disorder
- No → Specific phobia

Figure 1. Diagnostic algorithm for patients presenting with anxiety symptoms.
become chronic and severe, the avoidance behavior is not so closely tied to discrete panic episodes, making the differentiation from social anxiety disorder more difficult. Panic attacks often are found in social anxiety disorder, driven by anticipation of the social situation or by exposure to the situation itself. Agoraphobia is invariably present in social anxiety disorder.

Because the worries encountered in generalized anxiety disorders are protean, any complete list of concerns would include social anxieties. In social anxiety disorder, the key to the anxiety is fear of humiliation, embarrassment or negative appraisal by others. This may be present in generalized anxiety disorder, but is not the primary focus. In generalized anxiety disorders, however, the worries extend to include excessive concerns about other life circumstances, such as finances, health and job performance. Chronic muscular tension and fatigue may be more prominent in the presenting complaint of generalized anxiety disorder, as compared to social anxiety disorder.

The most challenging differentiation is between the generalized subtypes of social anxiety disorder and avoidant personality disorder. Prior to the publication of the DSM-IV, a task force had considered combining the two diagnoses because of the significant symptom overlap. Currently, the diagnoses remain separate, with generalized social anxiety disorder considered a more specific construct than avoidant per-
Social Anxiety Disorder

Treatment
For social anxiety disorder, treatment at the primary-care level is most important. A large number of individuals are affected and it accounts for a significant proportion of a family physician’s practice. These patients often prefer to have the path of treatment initiated by someone they trust. To date, research into the natural course of social anxiety disorder tends to show it has a chronic debilitating course, however, treatment is available and does make a difference.12,16

Treatment issues are generally subdivided into pharmacologic and psychotherapeutic modalities.

Pharmacologic. Beta-blockers have proven helpful in performance-based social anxiety.2 If situations are predictable, medications can be taken prior to the event. Table 5 provides a list of dosage guidelines. If these situations take place erratically, however, a regular dosing schedule is preferable.

For generalized social anxiety disorder, antidepressant medications are the primary choice.17 The traditional pharmacologic approach to severe social anxiety has been monoamine oxidase inhibitors (MAOIs), such as phenelzine. Studies show good efficacy, with up to two-thirds of those treated having a positive response.2,12 MAOIs, however, have significant side effects and require stringent adherence to a low tyramine diet, which limits their use.

Benzodiazepines, especially clonazepam with its longer half-life, have been studied with fairly good success.12 Unfortunately, tolerance, dependence and cognitive dulling cast a negative shadow on this group of drugs, especially with its targeted patient population already being at high risk of substance abuse or dependence. Once a patient is taking these medications, it is notoriously difficult to wean them because of rebound anxiety symptoms. In general, benzodiazepines tend to be reserved for “breakthrough” anxiety, “just in case” anxiety attacks and for resistant cases.

Newer antidepressants now are being

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Table 3
Important Conditions To Consider When A Patient Exhibits Anxiety

<table>
<thead>
<tr>
<th>Potential Complications</th>
</tr>
</thead>
<tbody>
<tr>
<td>• Alcoholism.</td>
</tr>
<tr>
<td>• Benzodiazepine and over-the-counter drug use.</td>
</tr>
<tr>
<td>• Common causes for symptoms of severe anxiety.</td>
</tr>
<tr>
<td>• Caffeinism or other stimulant use.</td>
</tr>
<tr>
<td>• Street drug use.</td>
</tr>
<tr>
<td>• Hyperthyroidism.</td>
</tr>
<tr>
<td>• Asthma/chronic obstructive pulmonary disease.</td>
</tr>
<tr>
<td>• Gastrointestinal conditions.</td>
</tr>
<tr>
<td>• Cardiac problems.</td>
</tr>
<tr>
<td>• Diabetes.</td>
</tr>
</tbody>
</table>

Comorbidity

• Major depression.
• Generalized anxiety disorder.
• Panic disorder.
• Agoraphobia.
• Substance abuse/dependence.
Moclobemide, a reversible MAOI, does not require dietary restrictions and has shown mixed results, but does have a good side-effect profile. Selective serotonin reuptake inhibitors (SSRIs) have been investigated recently, and preliminary studies are promising for paroxetine, sertraline and fluvoxamine. The relative safety of these medications, together with their effectiveness, have made them first-line treatments for social anxiety disorder. Venlafaxine and the newest antidepressant, mirtazapine, may also be effective and are reported to have fewer sexual side effects and cause potentially less weight gain than SSRIs. These antidepressant medications also may reduce the possibility of having an episode of major depression.

Duration of treatment is not clear, as most studies are generally no longer than three months. Given the serious symptoms and relatively early onset of this illness, treatment is likely to be necessary for six months or longer, even with a good medication response. Some individuals do well with medications alone and can challenge themselves to deal with avoidance patterns and habits.

### Table 4

**Screening Questions For Anxiety Disorders**

**Social Anxiety Disorder:** “Some people have strong fears about being watched or evaluated by others. Do you worry you might behave in a way that would embarrass you in front of others or have them judge you badly?”

**Specific Phobia:** “Some people have strong fears about certain things like flying, insects or snakes. Do you have any such fears?”

**Panic Disorder:** “Have you ever experienced a sudden onset of fear, anxiety or extreme discomfort (i.e., shortness of breath, heart racing, nausea, shakiness, dizziness) for no apparent reason?”

**Panic Disorder With Agoraphobia:** “Have you ever avoided going to a particular place because you might have an attack of fear, anxiety or extreme discomfort?”

**Generalized Anxiety Disorder:** “Do you often worry about a number of things in your life? Do you have trouble controlling this worry?”

**Post-traumatic Stress Disorder:** “Have you ever had a significant trauma where your life or someone else’s was threatened? Does this experience currently cause you problems?”

**Obsessions:** “Some people are bothered by intrusive, unpleasant or horrible thoughts that keep repeating. For example, some people have repeated thoughts of hurting someone they love, even though they don’t want to; that a loved one has been seriously hurt; that they will yell obscenities in public; or that they are contaminated by germs. Has anything like this troubled you?”

**Compulsions:** “Some people are bothered by being compelled to do something over and over. They can’t resist the urge, even when they try. They might wash their hands excessively, repeatedly check to see that the stove is off, the door is locked, or count things over and over. Has anything like this been a problem for you?”

Many patients, however, require additional nonpharmacologic interventions.

**Psychotherapeutic modalities.** Social anxiety disorder is not treated by supportive psychotherapy alone. Any disorder with avoidance as a symptom requires more direct and involved therapy. Common sense would suggest all individuals suffering from anxiety disorders educate themselves about anxiety and how their bodies react to stress. Many patients are interested and benefit from educational sources, some of which are listed in the suggested readings section at the end of this article. In addition, relaxation techniques are vital to the success of any treatment. Those most commonly used are the progressive relaxation techniques, practised daily by the patient. Some therapists might incorporate meditative approaches to the same end. Depending on the severity of the avoidance symptoms, individuals may benefit from social skills training or assertiveness training.

Because this disorder can markedly reduce the patient’s educational or occupational attainment, vocational assessment, training and upgrading are possible adjunctive therapies.

**Cognitive behavioral therapy (CBT) and exposure therapy.** CBT combines cognitive restructuring with exposure, and provides both symptom reduction and behavioral change. It is widely accepted that cognitive distortions play a prominent role in avoidance behavior. The basic components of cognitive therapy are anxiety management (education and relaxation techniques); improvement of social skills (basic retraining and practising of social skills); cognitive restructuring; and measured exposure.

Exposure therapy involves facing the feared stimulus in a stepwise manner. This treatment can occur in “real” situations (*in vivo*) or can be tackled by role-playing or through imagery. Cognitive restructuring identifies faulty thinking in feared social situations and works to transform the distortions to acceptable and reasonable views. CBT with exposure has been found to be highly successful, with over 75% of people benefiting from treatment. These gains are maintained long after therapy is completed.

CBT is at least as effective as pharmacotherapy. In one study, medications showed a faster

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### Table 5

**Social Anxiety Disorder Medications**

<table>
<thead>
<tr>
<th>Medication</th>
<th>Dosage Used</th>
</tr>
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<tbody>
<tr>
<td>Beta-Blockers</td>
<td></td>
</tr>
<tr>
<td>Propranolol</td>
<td>10 mg to 20 mg as needed</td>
</tr>
<tr>
<td>Nadolol</td>
<td>40 mg to 80 mg</td>
</tr>
<tr>
<td>Atenolol</td>
<td>50 mg to 100 mg</td>
</tr>
<tr>
<td>MAOIs*</td>
<td></td>
</tr>
<tr>
<td>Phenelzine</td>
<td>7.5 mg to 90 mg in divided doses</td>
</tr>
<tr>
<td>Moclobemide††</td>
<td>75 mg to 600 mg</td>
</tr>
<tr>
<td>Benzodiazepines</td>
<td></td>
</tr>
<tr>
<td>Lorazepam</td>
<td>0.5 mg to 3 mg divided doses</td>
</tr>
<tr>
<td>Clonazepam</td>
<td>0.5 mg to 3 mg divided doses</td>
</tr>
<tr>
<td>SSRIs†</td>
<td></td>
</tr>
<tr>
<td>Fluoxetine</td>
<td>5 mg to 40 mg</td>
</tr>
<tr>
<td>Sertraline</td>
<td>50 mg to 100 mg</td>
</tr>
<tr>
<td>Paroxetine</td>
<td>10 mg to 50 mg</td>
</tr>
<tr>
<td>Fluvoxamine</td>
<td>50 mg to 300 mg</td>
</tr>
<tr>
<td>Citalopram</td>
<td>15 mg to 30 mg</td>
</tr>
</tbody>
</table>

*Phenelzine requires special low tyramine diets (MAOI diet). †The low dose corresponds to the starting dosage, which could then be slowly titrated to obtain the desired response. ††Moclobemide is a reversible monoamine oxidase inhibitor and does not require the dietary modification necessary for the MAOIs.

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**Social Anxiety Disorder**

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onset and degree of symptom relief than CBT alone. Discontinuation of the medication, however, resulted in more relapses than seen in those receiving CBT. This therapy is available in both individual and group settings. The group milieu provides a positive challenge to socially anxious individuals and is more cost-effective than individual therapy. Social skills training, which is more readily accessible, seeks to improve socialization by systematically increasing the patient’s involvement in activities.

Conclusion
Social anxiety disorder may commence early in life and has a chronic course. Though not life-threatening, it leads to serious disruptions in an individual’s quality of life, work and relationships. When untreated, more than three-quarters of those with social anxiety develop serious comorbid disorders. It is the third most common psychiatric illness, accounting for around 7% of patients in a general practice, and screening is exceedingly important so that appropriate therapy can be initiated.

Social anxiety is a treatable disorder. Treatment should take into consideration the patient’s preference, since either CBT, medications or a combination would be appropriate. The presence of comorbid disorders, such as major depression and alcohol abuse, require special attention and continued monitoring. Information regarding social anxiety and relaxation techniques need to be part of the treatment plan. Failure of the patient to respond to therapeutic interventions might require a referral to a psychiatrist for consultation and diagnostic assessment.

References