taught any special handling techniques needed for the care of their infant and signs of complications or possible sequelae. If sequelae are inevitable, the family will need assistance in determining how they can best cope with the problems, such as assistance with home care, referral to appropriate agencies, or placement in an institution for care. The major goal of nursing care is prevention of these disorders with provision of adequate prenatal care for the expectant mother and precautions regarding exposure to teratogenic infections.

Defects Caused by Chemical Agents

Prenatal environmental influences from chemicals such as alcohol, medications, or drugs of abuse; infectious disease; or radiation or other environmental influences may be regarded as nongenetic causes of congenital anomalies because these effects can produce congenital structural, functional, or growth defects. An agent that produces congenital malformations or increases their incidence is called a **teratogen**.

The relationship of the fetal and maternal circulations allows for the interchange of chemical substances across the placental membrane. Many drugs have been suspected of producing congenital malformations, and some have been definitely implicated. Some of the most recognized teratogenic drugs include alcohol, tobacco, antiepileptic medications, isotretinoin (Accutane), lithium, cocaine, and diethylstilbestrol (Table 8-13).

TABLE 8-13

Congenital Effects of Maternal Alcohol Ingestion and Tobacco Smoking

Fetal or Newborn Effects	Comments and Nursing Care Management
Alcohol (Fetal Alcohol Spectrum Disorder)	
Features vary—infant may not display physical features; involves three main categories: • Growth failure in utero and after birth, including microcephaly • Midfacial dysmorphic	Quantity of alcohol consumed is not the determinant; rather, it is the amount consumed in excess of the liver's ability to detoxify the alcohol. Free alcohol has an affinity for brain tissue, hence the CNS symptoms. Ethanol byproducts also contribute to toxicity, as do other substances consumed in addition to alcohol and poor maternal self-care. The effects of alcohol on the fetus occur across a continuum ranging from subtle neurological deficits to full-blown FAS. The term *FASD* is used to describe the range of clinical presentations ascribed to fetal alcohol exposure. Early gestation is considered the most vulnerable period; however,