The addition of chemotherapy to radiation aids in the survival of patients with head and neck cancer but also increases acute toxicity, primarily painful oral mucositis and dermatitis exacerbated by xerostomia. The consequences of these side effects often result in hospitalization and breaks in treatment, which lead to lower locoregional control and survival rates. No strategies reliably prevent radiation-induced mucositis; therefore, emphasis is placed on management to prevent treatment breaks. The NO SToPS approach describes specific multidisciplinary strategies for management of nutrition; oral care; skin care; therapy for swallowing, range of motion, and lymphedema; pain; and social support to assist patients through this difficult therapy.