

levels, the best approach is to allow the child to regulate activity with reasonable adult supervision. It may be necessary for the parents to alert the schoolteacher to the child's physical limitations, particularly in terms of strenuous activity.

Nausea and Vomiting

The nausea and vomiting that occur shortly after administration of chemotherapy and as a result of cranial or abdominal irradiation can be profound. 5-Hydroxytryptamine-3 receptor antagonists are the antiemetics of choice to manage nausea and vomiting caused by chemotherapy and radiotherapy ([Dupuis, Boodhan, Holdsworth, et al, 2013](#)). The advantage of these agents over conventional drugs is that they produce no extrapyramidal side effects. Multiple studies have shown ondansetron (Zofran) to be effective for patients receiving moderate to highly emetic chemotherapy, and ondansetron in combination with dexamethasone has been more effective than ondansetron alone ([Dupuis, Boodhan, Holdsworth, et al, 2013](#)).

For mild to moderate vomiting, phenothiazine-type drugs remain is given. Promethazine (Phenergan), prochlorperazine (Compazine), or trimethobenzamide (Tigan) may be effective agents. Synthetic cannabinoids are now being used in children undergoing chemotherapy, such as dronabinol. Dronabinol helps control nausea and vomiting and also is an effective appetite stimulant ([Feyer and Jordan, 2011](#)).

The most beneficial regimen for antiemetic control has been the administration of the antiemetic before the chemotherapy begins (30 minutes to 1 hour before) and regular (not as-needed) administration for at least 24 hours after chemotherapy. The goal is to prevent the child from ever experiencing nausea or vomiting, because this can prevent the development of anticipatory symptoms (the conditioned response of developing nausea and vomiting before receiving the drug). Other nonpharmacologic interventions (similar to those discussed for pain management in [Chapter 5](#)) can be useful in controlling post-therapy and anticipatory nausea and vomiting. Giving the antineoplastic drug with a mild sedative at bedtime is also helpful for some children, and there is evidence that nighttime administration of drugs such as methotrexate and 6-mercaptopurine may be more effective