

## Specific Medication Considerations

| <b>Generic Name</b>          | <b>Trade Name</b> | <b>Classification</b>                  |
|------------------------------|-------------------|--|
| venlafaxine<br>hydrochloride | Effexor®          | atypical antidepressant<br>antianxiety |

### Neurophysiological Impact

|                       |  |
|-----------------------|--|
| <i>Dopamine</i>       | Reuptake inhibitor (1-4), increases levels (5, 6)  |
| <i>Norepinephrine</i> | Reuptake inhibitor (1-4); does not alter density of beta adrenoreceptors but decreases cyclic AMP response to norepinephrine (7); increases levels in the hippocampus (8), increases levels in the frontal cortex (9), increases levels (5, 10).   |
| <i>Serotonin</i>      | Reuptake inhibitor (1-4); suppresses neuronal firing activity (11), increases levels in the diencephalons (12), increases levels in the hippocampus (8); increases levels in the frontal cortex (9).   |
| <i>General</i>        | Drug-induced alterations are most pronounced over both fronto-temporal and the right temporal to temporo-occipital regions (1). Increases blood flow bilaterally in the thalamus and decreases blood flow in the left occipital lobe, right cerebellum, and temporal cortex bilaterally (13). May have neuroprotective activity (14) |

### Neuroendocrine Impact

|                     |   |
|---------------------|---|
| <i>Cortisol</i>     | Increases ACTH levels (8).                  |
| <i>Melatonin</i>    | Increases content in the pineal gland (15). |
| <i>Prolactin</i>    | Increases levels (8).                       |
| <i>Reproductive</i> | Reduces testosterone levels (16).           |
| <i>Thyroid Axis</i> | Raises T3 levels in the amygdala (17).      |

### Nutritional Implications

#### *Appetite/Intake*

- Weight loss has been reported (6)
- Reduces food intake (18).

#### *Eating Disorders*

- When used in conjunction with cognitive behavioral therapy, is an effective agent in the treatment of atypical anorexia nervosa (19).
- Is effective in treating binge eating disorder (20).

#### *Nutrition Status*

#### *Other*

- The presence of food appears to decrease the rate but not the extent of absorption (21).
- Extended release formulation increases postprandial gastric volume; can also affect upper gastrointestinal function (22).

### Special Notes

#### *Reported Off-label uses*

Attention deficit-hyperactivity disorder (23, 24), dystymic disorder (25), erythromelalgia (26), fibromyalgia (27), menopausal hot flashes (28-33), migraine (34, 35), neuropathic pain (36-40), polyneuropathy (41), premenstrual dysphoric disorder (42, 43).

## VENLAFAXINE

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