

## Seminoma

- late onset
- low stage and low risk
- rare lymphovascular invasion
- near-normal AFP levels
- infrequent retroperitoneal lymphadenectomy and chemotherapy
- suppression of gonad hormones (T, E2, HCG)
- activation of pituitary hormones (FSH, LH)
- decreased pre-surgery prolactin

## Non-seminomatous germ cell tumors

- early onset
- high stage and high risk
- frequent lymphovascular invasion
- high AFP levels
- high frequency of retroperitoneal lymphadenectomy and chemotherapy
- activation of gonad hormones (T, E2, HCG)
- suppression of pituitary hormones (FSH, LH)
- increased pre-surgery prolactin

### Key differences

1. AFP levels
2. retroperitoneal lymphadenectomy
3. age at surgery
4. FSH
5. E2
6. tumor size
7. LH
8. chemotherapy
9. HCG