

# **Contents**

- 
- 1 Introduction, 1**

---

## **SECTION ONE General aspects of pharmacology**

---

- 2 Drug-receptor interactions, 7**
- 3 Pharmacokinetic principles in the use of drugs, 15**
- 4 Drug metabolism and enzyme induction, 31**
- 5 Drug safety and effectiveness, 44**
- 6 Pharmacogenetics: the individual response to drugs, 54**  
*Elliot S. Vesell*
- 7 Effects of age on drug disposition, 72**  
*Elliot S. Vesell*
- 8 Effects of diet on drug disposition, 84**  
*Elliot S. Vesell*
- 9 Effects of occupation and disease on drug disposition, 93**  
*Elliot S. Vesell*

---

## **SECTION TWO Drug effects on the nervous system and neuroeffectors**

---

- 10 General aspects of neuropharmacology, 115**
- 11 Cholinergic (cholinomimetic) drugs, 136**
- 12 Atropine group of cholinergic blocking drugs, 149**
- 13 Ganglionic blocking agents, 163**
- 14 Neuromuscular blocking agents and muscle relaxants, 167**

- 15** Adrenergic (sympathomimetic) drugs, 176  
*Parkhurst A. Shore*
- 16** Adrenergic blocking agents, 201  
*Parkhurst A. Shore*
- 17** Drugs acting on the adrenergic neuron, 210  
*Parkhurst A. Shore*
- 18** Antihypertensive drugs, 217
- 19** Histamine, 235
- 20** Antihistaminic drugs, 247
- 21** Serotonin and antiserotonins, 255
- 22** Kinins and prostaglandins, 263

---

### **SECTION THREE      Psychopharmacology**

- 23** General aspects of psychopharmacology, 275  
*Parkhurst A. Shore*
- 24** Antipsychotic and antianxiety drugs, 281  
*Parkhurst A. Shore*
- 25** Antidepressant and psychotomimetic drugs, 293  
*Parkhurst A. Shore*

---

### **SECTION FOUR      Depressants and stimulants of the central nervous system**

- 26** Hypnotic drugs, 303
- 27** Central nervous system stimulants of the convulsant type, 329
- 28** Antiepileptic drugs, 334
- 29** Narcotic analgesic drugs, 341
- 30** Contemporary drug abuse, 357  
*Gregory G. Dimijian*
- 31** Nonnarcotic analgesics and anti-inflammatory drugs, 392

---

**SECTION FIVE      Anesthetics**

- 
- 32 Pharmacology of general anesthesia, 407**

*Burnell R. Brown, Jr.*

- 33 Pharmacology of local anesthesia, 430**

*Burnell R. Brown, Jr.*

---

**SECTION SIX      Drugs used in cardiovascular disease**

- 
- 34 Digitalis, 441**

- 35 Antiarrhythmic drugs, 457**

- 36 Antianginal drugs, 470**

- 37 Anticoagulant drugs, 477**

- 38 Diuretic drugs, 488**

- 39 Pharmacological approaches to atherosclerosis, 502**

---

**SECTION SEVEN      Drug effects on the respiratory and gastrointestinal tracts**

- 
- 40 Drug effects on the respiratory tract, 509**

- 41 Drug effects on the gastrointestinal tract, 518**

---

**SECTION EIGHT      Drugs that influence metabolic and endocrine functions**

- 
- 42 Insulin, glucagon, and oral hypoglycemic agents, 529**

- 43 Adrenal steroids, 538**

- 44 Thyroid hormones and antithyroid drugs, 550**

- 45 Parathyroid extract and vitamin D, 559**

- 46 Posterior pituitary hormones—vasopressin and oxytocin, 565**

- 47 Anterior pituitary gonadotropins and sex hormones, 571**

- 48 Pharmacological approaches to gout, 588**

- 49 Antianemic drugs, 593**

- 50 Vitamins, 603**

---

**SECTION NINE      Chemotherapy**

- 
- 51** Introduction to chemotherapy; mechanisms of antibiotic action, 615
  - 52** Sulfonamides, 622
  - 53** Antibiotic drugs, 633
  - 54** Drugs used in treatment of tuberculosis, 665
  - 55** Drugs used in treatment of leprosy, 672
  - 56** Antiseptics and disinfectants, 673
  - 57** Drugs used in treatment of amebiasis, 678
  - 58** Anthelmintic drugs, 683
  - 59** Antimalarial drugs, 693
  - 60** Drugs used in chemotherapy of neoplastic disease, 701

---

**SECTION TEN      Principles of immunopharmacology**

- 
- 61** Principles of immunopharmacology, 715

---

**SECTION ELEVEN      Poisons and antidotes**

- 
- 62** Poisons and antidotes, 723

---

**SECTION TWELVE      Drug interactions**

- 
- 63** Drug interactions, 737

---

**SECTION THIRTEEN      Prescription writing and drug compendia**

- 
- 64** Prescription writing and drug compendia, 749

---

**APPENDIXES**

- 
- A** Drug blood concentrations, 757
  - B** Comparison of selected effects of commonly abused drugs, 763
  - C** Half-lives of drugs in normal subjects, 768