

# Index

- Acid phosphatase in prostatic cancer
  - radical prostatectomy for prostatic cancer with, 23, 25, 26, 27
  - screening programs with, 7
- Actinomycin D, in Wilms' tumor therapy, 65, 67, 68, 73, 76, 77
- Active immunotherapy, 213
- Adenocarcinoma
  - antiproliferative chemotherapy in, 189–190
  - benign prostatic hyperplasia with, 19
  - incidence of prostatic, 1
  - lymphokine activated killer (LAK) cells and, 216
  - tissue interactions in carcinogenesis and, 169
  - ureteroileocecosigmoidostomy and, 117–118
- Adoptive immunotherapy, 213–229
  - combination chemotherapy with, 227–229
  - components in development of, 213
  - future prospects for, 229
  - interleukin-2 (IL-2) and, 214–215, 220–223
  - lymphokine activated killer (LAK) cells and, 215–217, 220–223
  - toxicity of treatment in, 223–227
  - tumor-infiltrating lymphocytes (TIL) and, 215, 217–220, 223
- Adrenalectomy, with Wilms' tumor, 71
- Adriamycin, *see* Doxorubicin (Adriamycin, ADR)
- Alphafetoprotein (AFP), in testicular cancer, 41–42
- Alpha-interferon, with adoptive immunotherapy, 228
- Anadron, in androgen ablation therapy, 183, 184
- Androgen
  - genetic instability of prostatic cancer cells and, 188–189
  - mesenchyme as mediator of, 167–169
  - prostatic development and, 160, 161, 163, 165, 166
- Androgen ablation therapy, 177–191
  - androgen action initiation in, 179
  - antiproliferative approaches in, 189–190
  - dihydrotestosterone (DHT) and prostatic cell number in, 179–180
  - environmental adaptation model in, 181–184
  - environmental selection model in, 181–182, 184–186
  - genetic instability of prostatic cancer cells and, 187–188
  - inadequate androgen suppression model in, 178–181
  - multifocal origin of prostatic cancer and, 186
  - prostatic cancer relapse and, 177–178
- Aniridia, with Wilms' tumor, 78, 79
- Antibiotic therapy, in epididymitis and testicular cancer diagnosis, 37
- Antibody production, and Bacillus Calmetter Guerin (BCG), 201–202
- Argon (Ar) laser, physics of, 124
- Ashken reservoir, in urinary diversion, 93–94
- Aspiration cytology in prostatic cancer, digital rectal examination compared with, 4
- Bacillus Calmetter Guerin (BCG), 195–209
  - antibladder tumor activity of, 205–209
  - cancer in situ (CIS) in, 197
  - delayed cutaneous hypersensitivity (DTH) to purified protein derivative (PPD) with, 202–203, 204
  - duration and intensity of therapy with, 197–198
  - early use of, 195
  - effector response of, 203–205

- fibronectin and antitumor activity of, 207–209
- humoral mechanisms of, 201–202
- laser therapy with, 129, 136
- maintenance therapy with, 198
- nonimmunologic mechanisms of, 199–200
- nonspecific immunological mechanisms of, 202–205
- side effects of, 198, 199
- specific immunological mechanisms of, 200–202
- superficial bladder cancer with, 196–198
- Beckwith-Wiedermann syndrome, 79
- Benckroun reservoir, in urinary diversion, 96–99
- Benign prostatic hyperplasia
  - prostate gland appearance in, 4
  - stage A prostatic cancer and, 19
  - tissue interactions in, 169
- Beta human chorionic gonadotropin (HCG), in testicular cancer, 37, 40–41
- Biopsy
  - digital rectal examination in prostatic cancer and, 3
  - penile carcinoma with, 60, 61–62
  - ultrasound in prostatic cancer with, 8
  - Wilms' tumor with, 70
- Bladder cancer
  - adjuvant chemotherapy in, 152
  - Bacillus Calmette Guerin (BCG) antitumor activity and, 205–209
  - Bacillus Calmette Guerin (BCG) therapy for, 196–198
  - bladder replacement in, 105, 110–111
  - chemotherapy in management of, 143–155
  - hematoporphyrin photosensitization and laser therapy for, 138–140
  - ileal conduit for urinary diversion in, 88
  - laser therapy for invasive, 130–132
  - laser therapy for superficial, 126–130
  - neoadjuvant chemotherapy in, 152–154
  - patient management principles in, 155
  - staging errors with, 152–153
  - transurethral resection (TUR) in, 130, 132
  - tumor-associated antigens in, 201
  - tumor recurrence in, 129–130, 132
- Bladder replacement, *see* Orthotopic bladder replacement
- Bone scans, with radical prostatectomy for prostatic cancer, 23, 24, 25, 26
- Breast carcinoma, and tumor-infiltrating lymphocytes (TIL), 223
- Bricker procedure, in urinary diversion, 85, 88
- B16 melanoma, and lymphokine activated killer (LAK) cells, 216
- Candela tunable-dye laser, 125
- Carboplatin, with urothelial tract tumors, 147
- Carcinoembryonic antigen, and hormonal therapy in prostatic cancer, 185
- Carcinoma in situ (CIS), and Bacillus Calmette Guerin (BCG) immunotherapy, 197
- Camey procedure, in orthotopic bladder replacement, 103–116
- Carbon dioxide (CO<sub>2</sub>) laser, 124
- CentiGray, in Wilms' tumor treatment, 67, 68
- Chemohormonal therapy, 177–191
  - androgen action initiation in, 179
  - antiproliferative chemotherapy approaches in, 189–190
  - dihydrotestosterone (DHT) and prostatic cell number in, 179–180
  - environmental adaptation model in, 181–184
  - environmental selection model in, 181–182, 184–186
  - genetic instability of prostatic cancer cells and, 187–188
  - inadequate androgen suppression model in, 178–181
  - multifocal origin of prostatic cancer and, 186
  - prostatic cancer relapse and, 177–178
- Chemotherapy
  - bladder cancer management with, 143–155
  - combination, *see* Combination chemotherapy
  - penile carcinoma treatment with, 61
  - radical prostatectomy for prostatic cancer and, 18
  - response criteria in trials of, 144–145
  - testicular cancer with, 44
  - Wilms' tumor treatment with, 65, 71–72, 73
  - see also individual agents*
- Chest roentgenography
  - testicular cancer metastases evaluation with, 39–40
  - Wilms' tumor diagnosis with, 69
- Choriocarcinoma, human chorionic gonadotropin (HCG) in, 41
- CISCA regimen, in urothelial tract tumors, 154
- Cisplatin (DDP), 145

- combination chemotherapy with urothelial tract tumors with, 147–148, 152, 153, 154
- M-VAC regimen with, 149–152, 153, 154
- response criteria in trials of, 145
- see also* Platinum-based chemotherapy
- Clear cell sarcoma of the kidney, 66–67
- Colon carcinoma
  - lymphokine activated killing (LAK) and, 224–225
  - tumor-infiltrating lymphocytes (TIL) and, 223
- Colonic reservoirs, in orthotopic bladder replacement, 114–116
- Combination chemotherapy
  - adoptive immunotherapy with, 227–229
  - testicular cancer treatment with, 35
  - tumor-infiltrating lymphocytes (TIL) and, 220
  - urothelial tract tumors with, 147–149
  - Wilms' tumor treatment with, 65, 67
- Computerized tomography (CT)
  - prostatic cancer detection with, 2
  - testicular cancer evaluation with, 40, 42–43
  - Wilms' tumor with, 68–70
- Congenital anomalies, with Wilms' tumor, 78–79
- Continent abdominal stoma in urinary diversion, 89–103
  - Ashken reservoir in, 93–94
  - Benchekroun reservoir in, 96–99
  - continent ileocecal reservoirs in, 93
  - early use of, 89
  - gastric reservoirs in, 103
  - Gilchrist ileocecal reservoirs in, 93
  - Indiana pouch in, 99–103
  - intussusception of ileocecal valve into cecum in, 94–96
  - Kock pouch in, 89–93
  - Mainz pouch in, 98–99
  - Mitrofanoff principle in, 99
- Corpora cavernosa, in radical prostatectomy for prostatic cancer, 16
- Cryptochidism
  - fertility and, 44–45
  - testicular cancer incidence and, 37
- Cyclophosphamide (CYT)
  - adoptive immunotherapy combined with, 228
  - tumor-infiltrating lymphocytes (TIL) with, 223
  - urothelial tract tumors with, 147, 148, 149
  - Wilms' tumor treatment with, 67
- Cypoterone acetate, in androgen ablation therapy, 184
- Cytosine, in prostatic cancer, 185–186, 188
- DDP, *see* Cisplatin (DDP)
- Delayed hypersensitivity (DTH) response, with Bacillus Calmette Guerin (BCG) immunotherapy, 202–203, 204
- Diagnosis
  - prostatic cancer, 1–11
  - testicular cancer, 36–38
  - Wilms' tumor, 68–70
- Digital rectal examination
  - prostatic cancer detection with, 2–4
  - ultrasound studies compared with, 3, 4
- Dihematoporphyrin ether (DHE), as photosensitizer, 138
- Dihydrotestosterone (DHT)
  - androgen action initiation by, 179
  - prostatic cell number related to, 179–180
  - prostatic development with, 160–161
- Doxorubicin (Adriamycin, ADR), 146–147
  - Bacillus Calmette Guerin (BCG) immunotherapy compared with, 197
  - cisplatin (DDP) combined with, 146
  - combination chemotherapy with urothelial tract tumors with, 148, 149–151, 153, 154
  - M-VAC regimen with, 149–152, 153, 154
  - response criteria in trials of, 146–147
  - Wilms' tumor treatment, 67, 68, 73
- Early detection of prostatic cancer, 1–22
  - approaches to, 2
  - digital rectal examination for, 2–4
  - incidence and prevalence of prostatic cancer of, 1
  - public awareness of, 1–2
  - screening compared with, 1
  - ultrasound for, 4–11
- Ejaculation and emission
  - mechanism of, 45
  - modified retroperitoneal lymphadenectomy in testicular cancer and, 51, 52
  - retroperitoneal lymphadenectomy in testicular cancer and, 46–47
- Electrical stimulation, with modified retroperitoneal lymphadenectomy in testicular cancer, 52
- Electrocautery
  - laser therapy combined with, 127, 129

- tissue effects of, 125, 126
- Embryonal-cell carcinoma, testicular  
 age groups and, 35  
 human chorionic gonadotropin (HCG) in, 41
- Environmental adaptation model, in androgen ablation therapy, 181–184
- Environmental selection model, in androgen ablation therapy, 181–182, 184–186
- Ephedrine, with modified retroperitoneal lymphadenectomy in testicular cancer, 52
- Epidermoid cyst, testicular, 37
- Epididymitis, and testicular cancer diagnosis, 37
- Epididymo-orchitis, and testicular cancer diagnosis, 37
- Estradiol, in testicular cancer, 37
- Estrogens, in prostatic development, 160
- Fibronectin (FN), and Bacillus Calmetter Guerin (BCG) activity, 205–209
- 5-Fluorouracil, with urothelial tract tumors, 147, 153, 154
- Flutamide, in androgen ablation therapy, 184
- Gallium nitrate, with urothelial tract tumors, 147
- Gamma-interferon, with adoptive immunotherapy, 228
- Gastric reservoirs, in urinary diversion, 103
- Genetic factors, and Wilms' tumor, 78–80
- Genitourinary malformations, with Wilms' tumor, 79
- Germ-cell tumors, testicular  
 computerized tomography (CT) evaluation of, 42–43  
 fertility and, 44, 45  
 gynecomastia with, 37  
 modified retroperitoneal lymphadenectomy in, 47–51
- Gilchrist ileocecal reservoir, in urinary diversion, 93
- Gynecomastia, with testicular cancer, 36–37
- Harvey-ras oncogene protein, and hormonal therapy in prostatic cancer, 185
- Hematoporphyrin photosensitization, with laser therapy, 138–140
- Hemihypertrophy, with Wilms' tumor, 79
- Hepatocellular carcinoma, with Wilms' tumor, 75
- Hepatoma tumor cells, and Bacillus Calmetter Guerin (BCG) immunotherapy, 200, 202
- Hormonal therapy  
 radical prostatectomy for prostatic cancer compared with, 18, 20, 21, 26, 27  
*see also* Chemohormonal therapy
- Human chorionic gonadotropin (HCG), in testicular cancer, 37, 40–41
- Ileal conduit urinary diversion, 85, 87–88
- Ileal segments, in orthotopic bladder replacement, 107
- Ileocecal reservoir, in urinary diversion, 93
- Ileocecal segments, in orthotopic bladder replacement, 104–105, 110–112
- Ileocecal valve, in urinary diversion, 94–96
- Imipramine, with modified retroperitoneal lymphadenectomy in testicular cancer, 51, 52
- Immunotherapy, *see* Adoptive immunotherapy; Bacillus Calmetter Guerin (BCG)
- Impotence  
 modified retroperitoneal lymphadenectomy in testicular cancer and, 51, 52  
 radical prostatectomy for prostatic cancer resulting in, 16  
 retroperitoneal lymphadenectomy in testicular cancer and, 46–47  
 radiotherapy for prostatic cancer and, 16
- Incontinence, *see* Urinary diversion techniques
- Indiana pouch  
 orthotopic bladder replacement with, 112  
 urinary diversion with, 99–103
- Interferons, with adoptive immunotherapy, 228
- Interleukin-2 (IL-2)  
 Bacillus Calmetter Guerin (BCG) immunotherapy and, 205  
 clinical studies with, 220–223  
 combination chemotherapy with, 228  
 future prospects for, 229  
 lymphokine activated killing (LAK) with, 215, 217, 220, 227  
 mechanism of action of, 214–215  
 toxicity of treatment with, 223–227  
 tumor-infiltrating lymphocytes (TIL) and, 217

- Intracardiac extension (ICE) technique, in Wilms' tumor surgery, 70–71
- Intralobar nephrogenic rests, in Wilms' tumor, 75
- Intravenous pyelogram (IVP), in Wilms' tumor diagnosis, 68
- Kidney**  
 clear cell sarcoma of, 66–67  
 gastric reservoirs for urinary diversion and, 103  
 laser therapy of pelvic cancer with, 133–138
- Kock pouch**  
 orthotopic bladder replacement with, 107–110  
 urinary diversion with, 89–93
- Lactate dehydrogenase (LDH), in testicular cancer, 40
- Large-bowel urinary diversion, 88–89
- Lasers, 123–141  
 invasive bladder cancer with, 130–132  
 limitations of, 131–132  
 photodynamic therapy with, 138–140  
 physics of, 123–125  
 second-look procedures with, 137  
 superficial bladder cancer with, 126–130  
 tissue effects of, 125–126  
 tumor recurrence with, 129–130, 132  
 types of, 124–125  
 upper urinary tract cancer with, 132–137  
*see also specific lasers*
- Leucine-B-aminopeptidase, in prostatic cancer, 186
- Leukemia, with Wilms' tumor, 75
- Liver metastases  
 adoptive immunotherapy with combination chemotherapy with, 228  
 lymphokine activated killer (LAK) cells and, 216, 224  
 Wilms' tumor with, 74
- L-10 hepatoma tumor cells, and Bacillus Calmetter Guerin (BCG) immunotherapy, 200, 202
- Lung metastases  
 adoptive immunotherapy with combination chemotherapy with, 228  
 lymphokine activated killer (LAK) cells and, 216  
 testicular cancer with, 39–40
- Luteinizing hormone releasing hormone (LHRH), in androgen ablation therapy, 182, 184, 188
- Lymphadenectomy  
 penile carcinoma with, 59–60  
 radical prostatectomy for prostatic cancer with, 23, 24, 26, 28  
 retroperitoneal, in testicular cancer, 36
- Lymphangiography, in testicular tumor metastases evaluation, 43
- Lymphadenopathy, in penile carcinoma, 55, 57–60
- Lymph node biopsy  
 penile carcinoma with, 60, 61–62  
 Wilms' tumor with, 70
- Lymph node metastases  
 radical prostatectomy for prostatic cancer and, 28–29  
 testicular germ-cell tumors with, 42–43  
 Wilms' tumor with, 73–74
- Lymphokines  
 adoptive immunotherapy and, 213  
 Bacillus Calmetter Guerin (BCG) immunotherapy and, 201, 205
- Lymphokine activated killer (LAK) cells  
 clinical studies with, 220–223  
 future prospects for, 229  
 mechanism of action of, 215–217  
 toxicity of treatment with, 223–227  
 tumor-infiltrating lymphocytes (TIL) and, 220
- Lymphoma, testicular, 35
- Magnetic resonance imaging (MRI), in prostatic cancer detection, 2
- Mainz pouch  
 orthotopic bladder replacement with, 112–114  
 urinary diversion with, 98–99
- Markers, in testicular cancer, 40–42
- MBT-2 mouse bladder tumor cells, with Bacillus Calmetter Guerin (BCG) immunotherapy, 199, 200, 201, 202, 203, 205, 207–208
- MCA-38 adenocarcinoma, and lymphokine activated killer (LAK) cells, 216
- Melanomas  
 adoptive immunotherapy with combination chemotherapy with, 228  
 lymphokine activated killer (LAK) cells and, 216

- tumor-infiltrating lymphocytes (TIL) and, 223
- Metastases**
- adoptive immunotherapy with combination chemotherapy with, 228
  - bladder cancer and, 143
  - lymphokine activated killer (LAK) cells and, 216, 224–225
  - penile carcinoma with, 56, 57, 59, 60, 61, 62
  - stage A<sub>2</sub> prostatic cancer with, 21
  - stage D<sub>0</sub> prostatic cancer with, 21
  - testicular cancer with, 35, 36, 39
  - Wilms' tumor with, 73–74
- Methotrexate (MTX)**, 145–146
- combination chemotherapy with urothelial tract tumors with, 147, 149–152
  - M-VAC regimen with, 149–152, 153, 154
  - response criteria in trials of, 146
- 3-methylcholanthrene-induced sarcoma**, and lymphokine activated killer (LAK) cells, 216
- Mitomycin C**
- renal pelvic cancer with, 136
  - urothelial tract tumors with, 147, 149
- Mitrofanoff principle**, in urinary diversion, 99
- Modified retroperitoneal lymphadenectomy**
- emission and ejaculation and, 51, 52
  - technique in, 47–51
- M-VAC regimen**, in urothelial tract tumors, 149–152, 153, 154
- Myeloid leukemia**, with Wilms' tumor, 75
- Natural killer (NK) cells**
- Bacillus Calmetter Guerin (BCG)** immunotherapy and, 203–204
  - interleukin-2 (IL-2) and, 214
  - lymphokine activated killer (LAK) cells and, 215
- Neodymium:yttrium-aluminum garnet (Nd:YAG) laser**, 140
- advantages and disadvantages of, 129
  - invasive bladder cancer with, 130–132
  - physics of, 124–125
  - second-look procedures with, 137
  - superficial bladder cancer with, 126–130
  - tissue effects of, 125–126
  - tumor recurrence with, 129–130, 132
- Nephroblastomatosis**, with Wilms' tumor, 75–76
- Nephrogenic rests**, in Wilms' tumor, 75
- NK cells**, *see* Natural killer (NK) cells
- Orthotopic bladder replacement**, 103–116
- artificial urinary sphincter in, 116
  - Camey procedure for, 105–107
  - colonic reservoirs in, 114–116
  - early work in, 104–105
  - ileal neobladders in, 107
  - ileocecal segments in, 110–112
  - Indiana continent urinary diversion in, 112
  - Kock pouch in, 107–110
  - Mainz pouch and LeBag in, 112–114
- Osteogenic sarcoma**, with Wilms' tumor, 75
- Passive immunotherapy**, *see* Adoptive immunotherapy
- Penile carcinoma**, 55–63
- inguinal lymphadenopathy with, 55, 57–60
  - metastatic disease with, 57, 59, 60, 62
  - metastatic survey in, 56
  - sentinal lymph node biopsy in, 60, 61–62
  - stage I disease in, 56–57
  - stage II disease in, 57–60
  - stage III disease in, 61–62
  - staging errors and treatment in, 61
  - staging system for, 55–56
  - timing of lymphadenectomy in, 59–60
  - treatment modalities and survival in, 61
- Perilobar nephrogenic rests**, in Wilms' tumor, 75
- Photodynamic therapy**, 138–140, 141
- clinical results with, 140
  - complications with, 140
  - effectiveness of, 139
  - proper light dose for, 139
- Platinum-based chemotherapy**
- testicular cancer with, 35
  - see also* Cisplatin (DDP)
- Pregnancy**, and Wilms' tumor, 77–78
- Prostate-specific antigen (PSA)** in prostatic cancer
- digital rectal examination compared with, 4
  - hormonal therapy and, 185
  - radical prostatectomy for prostatic cancer with, 23, 27–28
  - ultrasound in prostatic cancer with, 9
- Prostatic cancer**
- acid phosphatase studies in, 7–8
  - androgen ablation therapy in, 177–191
  - approaches to early detection of, 2
  - cell production rate in, 190
  - death rate for, 1
  - digital rectal examination for, 2–4

- genetic instability of, 187–188
  - ileal conduit for urinary diversion in, 88
  - incidence of, 1
  - multifocal origin of, 186
  - nonsurgical approaches to, 16–18
  - prevalence of, 1
  - public awareness of, 1–2
  - radical prostatectomy for treatment of, 15–30
  - screening for, 1
  - stage A disease definition in, 19
  - stage B disease definition in, 21–22
  - tissue interactions in, 169
  - ultrasound for early detection of, 4–11
  - Prostatic development, 159–169
    - androgenic effects on, 167–169
    - endocrinology of, 160–161
    - mesenchymal-epithelial interactions in, 161–164
    - role of epithelial:stromal ratio in, 165–167
    - tissue interactions in carcinogenesis and, 169
  - Pseudoephedrine hydrochloride, with
    - modified retroperitoneal lymphadenectomy in testicular cancer, 52
  - Pulmonary metastases, with testicular cancer, 39–40
  - Pyelonephritis, with urinary diversion, 88, 89, 90, 93, 103
- Radiation therapy, *see* Radiotherapy**
- Radical prostatectomy for prostatic cancer, 15–30**
- complications of, 15–16, 17
  - historical perspective on, 15–18
  - indications for, 18–19
  - morbidity and mortality with, 16, 25
  - nonsurgical approaches to prostatic cancer compared with, 16–18
  - retropubic approach to, 15
  - stage A definition in, 19
  - stage A<sub>1</sub> disease with, 19–20
  - stage A<sub>2</sub> disease with, 20–21
  - stage B definition in, 21–22
  - stage B<sub>1</sub> disease with, 21–25
  - stage B<sub>2</sub> disease with, 25–26
  - stage C disease with, 26–27
  - stage D<sub>0</sub> disease with, 27–28
  - stage D<sub>1</sub> disease with, 28–29
  - survival rates with, 18–19, 23, 27, 28
  - transurethral resection of prostate (TURP) in, 19–20
- Radionuclide bone scans, with radical prostatectomy for prostatic cancer, 23, 24, 25, 26
- Radiotherapy**
- adoptive immunotherapy with, 227
  - bladder cancer with, 152, 153
  - penile carcinoma with, 61
  - radical prostatectomy for prostatic cancer compared with, 16, 18, 19, 20, 27, 29
  - stage A<sub>2</sub> prostatic cancer with, 21
  - Wilms' tumor treatment with, 65, 67, 71, 76
- Ras oncogene protein, and hormonal therapy in prostatic cancer, 185
- 5 $\alpha$ -reductase deficiency, and prostatic development, 160–161
- Renal-cell cancer (RCC) cells
- lymphokine activated killer (LAK) cells and, 215
  - tumor-infiltrating lymphocytes (TIL) and, 218, 223
- Renal pelvic cancer, laser therapy with, 133–138
- Retinoblastoma, with Wilms' tumor, 75
- Retroperitoneal lymph node dissection (RPLND)
- emission and ejaculation and, 46–47, 51, 52
  - fertility in men and, 44–45
  - modified, 47–51
  - testicular metastases and, 36
- Rhabdoid tumor, malignant, 66
- Screening**
- acid phosphatase of prostatic cancer in, 7–8
  - digital rectal examination for prostatic cancer in, 3–4
  - early detection differentiated from, 1
  - ultrasound of prostatic cancer in, 6–7, 9
- Seminal vesicle, in prostatic development, 163
- Seminoma**
- age groups and, 35
  - human chorionic gonadotropin (HCG), 41
- Sentinel lymph node biopsy, in penile carcinoma, 60, 61–62
- Sexual function**
- bladder replacement and, 105
  - see also* Ejaculation and emission; Impotence
- Small bowel, and bladder replacement, 104–105
- Spermatogenesis, and testicular cancer therapy, 44–45, 51

- Spontaneous emission, with lasers, 123
- Squamous-cell penile carcinoma, 56, 61
- Staging  
 bladder cancer, 152–153  
 penile carcinoma, 55, 61  
 prostatic cancer, 19, 21–22, 26, 27, 28  
 testicular cancer, 38–43  
 Wilms' tumor, 66–67
- Stimulated emission, with lasers, 123
- T-cell growth factor (TCGF) interleukin-2 (IL-2), 214–215
- Teniposide, in combination chemotherapy with urothelial tract tumors, 153, 154
- Testes  
 intratesticular tumors in, 37  
 seminal ejaculation mechanism and, 45
- Testicular cancer  
 age groups for, 35  
 clinical studies in, 36–37  
 computerized tomography (CT) in, 42–43  
 diagnostic techniques for, 36–38  
 emission and ejaculation changes with, 45–47  
 evaluation of metastases in, 39  
 fertility affected by, 44–45  
 incidence of, 35  
 lung evaluation for metastases in, 39–40  
 modified retroperitoneal lymphadenectomy for, 47–51  
 nerve-sparing techniques in surgery for, 52  
 staging of, 38–43  
 therapy for, 44  
 tumor markers in, 40–42  
 ultrasonography for, 37–38
- Testicular feminization mutation (Tfm), 161
- Testosterone  
 androgen action initiation by, 179  
 prostatic development and, 160, 165
- Thymidine, in prostatic development, 160
- T lymphocytes, and Bacillus Calmetter Guerin (BCG) immunotherapy, 202
- Tofranil, with modified retroperitoneal lymphadenectomy in testicular cancer, 51, 52
- Transitional cell carcinoma  
 Bacillus Calmetter Guerin (BCG) immunotherapy and, 197, 199  
 management of, 143  
 tissue interactions in, 169  
 urinary diversion and, 87, 105
- Tumor-infiltrating lymphocytes (TIL), 215  
 clinical studies with, 223  
 future prospects for, 229  
 mechanism of action of, 217–220
- Tumor markers, in testicular cancer, 40–42
- Tumor necrosis factor (TNF), with immunotherapy, 228
- Tunneled ureterosigmoidostomy, 88
- Ultrasonography of prostatic cancer  
 biopsy with, 8  
 characteristics of prostatic cancer and, 4–6  
 digital rectal examination compared with, 3, 4  
 early detection with, 4–11  
 echogenicity of, 6  
 evaluation of efficiency of, 10–11  
 limitations of, 9–10  
 normal prostate compared with, 4  
 routes for, 4  
 screening programs with, 6–7, 9  
 specificity of, 7–8  
 studies compared with, 9–10
- Ultrasonography of testicular cancer, 37–38
- Ureteral cancer, laser therapy for, 133, 140
- Ureteroileocecosigmoidostomy, 117–118
- Uretersigmoidostomy, 88, 116–117
- Urinary diversion techniques, 85–118  
 anal sphincter use in, 116–118  
 appliance-dependent systems for, 87–89  
 Bricker procedure as standard in, 85, 88  
 continent abdominal stoma in, 89–103  
 goals of, 85  
 orthotopic bladder replacement in, 103–116  
 patient selection for, 86–87  
 preoperative radiographic studies for, 87  
 public awareness of, 85–86  
 social and physical considerations in, 87  
 systems of, 87
- Urinary sphincter, in orthotopic bladder replacement, 116
- Urogenital sinus (UGS), in prostatic development, 159, 160
- Urogenital sinus epithelium (UGE)  
 prostatic development with, 161–164, 166, 167  
 tissue interactions in carcinogenesis and, 169
- Urogenital sinus mesenchyme (UGM)  
 prostatic development with, 161–164, 166, 167–169  
 tissue interactions in carcinogenesis and, 169

- Vinblastine sulfate (VLB)
  - combination chemotherapy with urothelial tract tumors with, 149–152
  - M-VAC regimen with, 149–152, 153, 154
  - response criteria in trials of, 147
- Vincristine
  - urothelial tract tumors with, 147
  - Wilms' tumor therapy with, 65, 67, 68, 73
- WAGR (Wilms' tumor, aniridia, genitourinary abnormalities, retardation) syndrome, 79–80
- Wilms' tumor, 65–80
  - adrenalectomy in, 71
  - bilateral tumors in, 72–73, 78
  - genetic aspects of, 78–80
  - histology of, 65–67
  - historical background to, 65–68
  - intracardiac extension (ICE) technique in, 70–71
  - long-term effects of therapy for, 76–78
  - lymph node metastatic disease with, 73–74
  - nephroblastomatosis with, 75–76
  - pregnancy outcome and, 77–78
  - preoperative chemotherapy in, 71–72
  - preoperative evaluation of, 68–70
  - relapse in, 73
  - second malignant neoplasms with, 77
  - staging system for, 66–67
  - surgical treatment of, 70–73
- WAGR (Wilms' tumor, aniridia, genitourinary abnormalities, retardation) syndrome with, 79–80
- Yolk-sac tumor
  - age groups and, 35
  - human chorionic gonadotropin (HCG) in, 41