male reproductive system

male reproductive system is a complex network of organs and structures responsible for the production, maturation, and delivery of sperm, as well as the secretion of male sex hormones. This system plays a crucial role in human reproduction, enabling the continuation of genetic material to the next generation. Understanding the male reproductive system involves exploring its anatomy, physiology, hormonal regulation, and common disorders that may affect fertility and overall reproductive health. This article provides a comprehensive overview of the male reproductive system, detailing its primary components, their functions, and the biological processes involved. Additionally, it outlines the importance of hormonal balance and highlights some prevalent medical conditions that can impair reproductive function. A thorough grasp of these elements is essential for both medical professionals and individuals seeking to maintain reproductive health.

Anatomy of the Male Reproductive System

The male reproductive system consists of both external and internal organs that coordinate to produce, store, and transport sperm. These organs include the testes, epididymis, vas deferens, seminal vesicles, prostate gland, bulbourethral glands, and the penis. Each part has a specific function that contributes to successful reproduction.

External Organs

The primary external organs of the male reproductive system are the penis and the scrotum. The penis serves as the conduit for semen during ejaculation and urine during urination. The scrotum is a sac-like structure that houses the testes outside the abdominal cavity, maintaining an optimal temperature for sperm production.

Internal Organs

Internal components include the testes, where sperm production occurs; the epididymis, which stores and matures sperm; the vas deferens, which transports sperm to the urethra;

the seminal vesicles and prostate gland, which produce seminal fluid; and the bulbourethral glands, which secrete a lubricating fluid prior to ejaculation.

Key Anatomical Structures

- **Testes:** Paired glands responsible for sperm and testosterone production.
- **Epididymis:** Coiled tube where sperm mature and are stored.
- **Vas deferens:** Duct that carries sperm from the epididymis to the urethra.
- **Seminal vesicles:** Glands producing fructose-rich fluid to nourish sperm.
- **Prostate gland:** Secretes alkaline fluid that enhances sperm motility.
- **Bulbourethral glands:** Produce pre-ejaculate fluid to lubricate the urethra.
- **Penis:** Organ facilitating sperm delivery and sexual intercourse.

Functions of Male Reproductive Organs

The organs of the male reproductive system work collectively to ensure the production, maturation, storage, and delivery of viable sperm. Each organ contributes to specific aspects of this process, supporting overall fertility and reproductive capability.

Sperm Production and Maturation

The testes contain seminiferous tubules where spermatogenesis occurs, producing immature sperm cells. These sperm then travel to the epididymis, where they undergo maturation and gain motility, essential for successful fertilization.

Seminal Fluid Production

Seminal vesicles and the prostate gland secrete fluids rich in nutrients and enzymes that combine with sperm to form semen. This fluid protects sperm and facilitates their movement through the male and female reproductive tracts.

Sperm Transport and Ejaculation

During ejaculation, mature sperm are propelled from the epididymis through the vas deferens, mixed with seminal fluid, and expelled via the urethra housed within the penis. This coordinated mechanism is vital for delivering sperm to the female reproductive

system.

Hormonal Regulation in the Male Reproductive System

Hormones play a pivotal role in regulating the male reproductive system, influencing the development, function, and maintenance of reproductive organs. The hypothalamic-pituitary-gonadal axis is central to this hormonal control.

Testosterone and Its Functions

Testosterone, the primary male sex hormone produced by Leydig cells in the testes, is essential for the development of male secondary sexual characteristics, spermatogenesis, libido, and overall reproductive health.

Regulatory Hormones

The hypothalamus secretes gonadotropin-releasing hormone (GnRH), stimulating the pituitary gland to release luteinizing hormone (LH) and follicle-stimulating hormone (FSH). LH triggers testosterone production, while FSH supports sperm production in the seminiferous tubules.

Hormonal Feedback Mechanisms

Negative feedback loops regulate hormone levels to maintain homeostasis. Elevated testosterone levels inhibit the release of GnRH, LH, and FSH, preventing excessive hormone production and maintaining balance within the male reproductive system.

Common Disorders Affecting the Male Reproductive System

Several medical conditions can impair the function of the male reproductive system, potentially leading to infertility, sexual dysfunction, or other health complications. Early diagnosis and treatment are critical for managing these disorders.

Varicocele

Varicocele is an enlargement of the veins within the scrotum, often causing reduced sperm quality and quantity, which can lead to infertility. It is a common reversible cause of male infertility.

Erectile Dysfunction

Erectile dysfunction (ED) refers to the inability to achieve or maintain an erection sufficient for sexual intercourse. It may result from psychological, neurological, vascular, or hormonal issues.

Prostatitis and Prostate Disorders

Inflammation of the prostate gland, known as prostatitis, or benign prostatic hyperplasia can interfere with urinary and reproductive functions, causing discomfort and affecting semen quality.

Testicular Cancer

Though relatively rare, testicular cancer primarily affects younger males. Early detection through self-examination and clinical assessment improves treatment outcomes.

Other Causes of Male Infertility

- Hormonal imbalances
- Genetic abnormalities
- Infections of the reproductive tract
- Obstructions in sperm transport pathways
- Environmental and lifestyle factors

Maintaining Male Reproductive Health

Maintaining optimal reproductive health involves lifestyle choices, regular medical checkups, and awareness of factors that can affect the male reproductive system. Preventive care and early intervention are essential for preserving fertility and overall well-being.

Healthy Lifestyle Practices

Adopting a balanced diet, regular exercise, avoiding tobacco and excessive alcohol consumption, and managing stress contribute significantly to reproductive health. Protecting the genital area from injury and infections is also vital.

Regular Medical Screening

Routine examinations, including testicular self-exams and consultations with healthcare providers, facilitate early detection of abnormalities or diseases affecting the male reproductive system.

Addressing Sexual Health Concerns

Open communication with healthcare professionals about sexual function and fertility concerns promotes timely diagnosis and treatment of underlying conditions, enhancing quality of life.

Frequently Asked Questions

What are the primary functions of the male reproductive system?

The primary functions of the male reproductive system are to produce, maintain, and transport sperm and protective fluid (semen), and to discharge sperm within the female reproductive tract during sex. It also produces and secretes male sex hormones responsible for maintaining male secondary sexual characteristics.

What organs make up the male reproductive system?

The male reproductive system consists of the testes, epididymis, vas deferens, seminal vesicles, prostate gland, bulbourethral glands, and the penis.

How does sperm production occur in the male reproductive system?

Sperm production, or spermatogenesis, occurs in the seminiferous tubules within the testes. It is a continuous process where germ cells divide and mature into sperm cells, which then move to the epididymis to mature further and be stored.

What role does the prostate gland play in the male reproductive system?

The prostate gland produces a fluid that makes up a significant portion of semen. This fluid nourishes and protects sperm, enhancing their motility and longevity within the female reproductive tract.

How is testosterone related to the male reproductive

system?

Testosterone, produced mainly by the testes, is the primary male sex hormone. It regulates the development of male reproductive tissues, stimulates sperm production, and influences secondary sexual characteristics such as muscle mass, voice deepening, and facial hair growth.

What common health issues affect the male reproductive system?

Common health issues include erectile dysfunction, prostatitis, benign prostatic hyperplasia (BPH), testicular cancer, and infections such as sexually transmitted infections (STIs).

How does the vas deferens function in reproduction?

The vas deferens is a duct that transports mature sperm from the epididymis to the urethra in preparation for ejaculation.

Can lifestyle choices impact the health of the male reproductive system?

Yes, lifestyle choices such as smoking, excessive alcohol consumption, poor diet, lack of exercise, and exposure to environmental toxins can negatively impact sperm quality, hormone levels, and overall reproductive health.

What is the importance of the bulbourethral glands in the male reproductive system?

The bulbourethral glands secrete a clear mucus called pre-ejaculate that lubricates the urethra for sperm to pass through and helps neutralize any acidic urine residue, protecting sperm during ejaculation.

Additional Resources

1. *The Male Reproductive System: Anatomy and Physiology*
This comprehensive book offers an in-depth exploration of the anatomy and physiology of the male reproductive system. It covers the structure and function of key organs such as the testes, epididymis, vas deferens, and prostate gland. The text is rich with detailed illustrations and clinical correlations, making it ideal for students and healthcare professionals.

2. *Male Fertility and Reproductive Health*
Focusing on factors affecting male fertility, this book delves into the biological and environmental influences on sperm production and quality. It discusses common disorders such as oligospermia and azoospermia, as well as diagnostic techniques and treatment options. The book also highlights lifestyle changes that can improve reproductive

outcomes.

3. *Reproductive Endocrinology in Men*
This title examines the hormonal regulation of the male reproductive system, emphasizing the roles of testosterone, luteinizing hormone, and follicle-stimulating hormone. It explains how endocrine disorders impact reproductive function and details approaches to diagnosis and therapy. The book is a valuable resource for endocrinologists and urologists.

4. *Pathophysiology of Male Reproductive Disorders*
A detailed analysis of various diseases and disorders affecting the male reproductive tract, including prostatitis, erectile dysfunction, and testicular cancer. The book integrates pathophysiological mechanisms with clinical presentations and treatment strategies. It is designed for medical students and practitioners specializing in urology.

5. *Advances in Male Contraception*
This book reviews current research and developments in male contraceptive methods beyond condoms and vasectomy. It explores hormonal and non-hormonal approaches, challenges in development, and future prospects. The text also discusses societal and ethical considerations surrounding male contraception.

6. *Male Reproductive Aging and Health*
Addressing the effects of aging on the male reproductive system, this book covers changes in hormone levels, sperm quality, and sexual function over time. It also examines associated health risks such as prostate enlargement and decreased fertility. The book offers guidance on managing age-related reproductive issues.

7. *Male Reproductive Immunology*
This specialized text explores the immune system’s role in male reproductive health, including autoimmune infertility and immunological barriers to sperm function. It discusses diagnostic techniques and immunotherapy options. The book is suitable for researchers and clinicians interested in reproductive immunology.

8. *Testicular Cancer: Diagnosis and Management*
Providing a thorough overview of testicular cancer, this book covers epidemiology, risk factors, diagnostic procedures, and treatment modalities. It emphasizes early detection and advances in surgical and chemotherapeutic interventions. The book is essential reading for oncologists and urologists.

9. *Sexual Function and Dysfunction in Men*
This book addresses the physiological and psychological aspects of male sexual function, including erectile dysfunction, premature ejaculation, and libido disorders. It reviews diagnostic criteria, underlying causes, and therapeutic options ranging from pharmacological to behavioral therapies. The text aims to improve understanding and treatment of male sexual health issues.

Male Reproductive System

http://www.speargroupllc.com/algebra-suggest-008/pdf?dataid=HgA96-0886&title=modern-algebra-structure-and-method-book-1.pdf

male reproductive system: Male Reproductive Anatomy Wei Wu, 2022-01-19 The male reproductive system, which is made up of the testes, scrotum, epididymis, vas deferens, seminal vesicles, prostate gland, bulbourethral gland, ejaculatory duct, urethra, and penis, functions mainly in the production, nourishment, and temporary storage of spermatozoa. Epigenetic modifications are essential to regulate normal gonadal development and spermatogenesis. The sperm epigenome is highly susceptible influence by a wide spectrum of environmental stimuli. This book focuses on the male reproductive system, discussing topics ranging from aspects of anatomy and risk factors for male infertility to clinical techniques and management of male reproductive health.

male reproductive system: The Human Body; the Male Reproductive System , 1969 Describes the functions of the various male reproductive organs, the production of the sperm, and how it fertilizes the egg.

male reproductive system: *The Male Reproductive System* Ian Peate, 2025-01-07 PEATE'S BODY SYSTEMS THE MALE REPRODUCTIVE SYSTEM A CONCISE, ILLUSTRATED, AND ACCESSIBLE GUIDE TO THE MALE REPRODUCTIVE SYSTEM Each of the twelve volumes in Peate's Body Systems series is rooted in the belief that a deep and thorough understanding of the human body is essential for providing the highest standard of care. Offering clear, accessible and up-to-date information on different body systems, this series bridges the gap between complex scientific concepts and practical, everyday applications in health and care settings. This series makes for an invaluable resource for those committed to understanding the intricacies of human biology, physiology and the various systems that sustain life. The Male Reproductive System is the perfect companion for students and newly registered practitioners across nursing and allied health fields with an interest in male reproductive health, providing a comprehensive yet easy-to-digest guide for both academic and clinical application. Equips healthcare students and practitioners with the necessary information to provide safe and competent care Features colourful illustrations to aid comprehension, clarify complicated concepts, and render content more engaging and accessible Empowers readers to adapt to a rapidly evolving healthcare landscape, preparing them for the future of healthcare delivery Contains information necessary for effective patient care of those with testicular torsion, Lower Urinary Tract Symptoms (LUTS), prostate cancer, and other male reproductive diseases and conditions

male reproductive system: *Molecular Biology of the Male Reproductive System* David de Kretser, 2012-12-02 Written by experts in their respective fields, this book reviews the expanding knowledge concerning the mechanisms regulating male reproduction at the molecular and cellular levels. It covers the development of the testes and regulatory controls for spermatogenesis and steroidogenesis, and it considers aspects of Sertoli cell function. Areas of emphasis include communication between the various cell types involved in reproduction by hormone and growth factors and the mechanisms by which these factors regulate gene expression. A number of mammalian systems, including humans, are covered. The carefully selected authors provide a clear synopsis of the concepts in each area as well as the latest references, enabling the reader to investigate the topic further. This book is of interest to those seeking an understanding of the regulatory mechanisms in male reproduction and is written for the graduate and postgraduate levels. - Provides up-to-date reviews of the molecular and cellular biology of male reproduction - Includes chapters on the developmental biology of the testes - Links conventional hormonal control of testicular function with the evolving role of growth factors and proto-oncogenes

male reproductive system: *Male Reproductive System* Anatomical Chart Company Staff, 1992-01-01 Provides anterior and posterior view of the system. Shows the pelvic organ (oblique section) and cross-section of the penis. Illustrates the prostate, perineum, spermatogenesis, testis,

and vasculature & innervation. Size is 20 W by 26 H.

male reproductive system: The Male Reproductive System Anatomical Chart Anatomical Chart Company Staff, 2000-01-28 The Male Reproductive System Chart is a useful tool for learning and showing the anatomical structures of the male reproductive system. Finely detailed and labeled illustrations show: sagittal section of the pelvic organ anterior and posterior view of the system cross-section of the penis also illustrates: the prostate detail of the perineum spermatogenesis testis vasculature & innervation of the system made in USA Available in the following versions 20 x 26 heavy paper laminated with grommets at top corners ISBN 9781587790300 20 x 26 heavy paper ISBN 9781587790317

male reproductive system: Textbook of Basic Nursing Caroline Bunker Rosdahl, Mary T. Kowalski, 2008 Now in its Ninth Edition, this comprehensive all-in-one textbook covers the basic LPN/LVN curriculum and all content areas of the NCLEX-PN®. Coverage includes anatomy and physiology, nursing process, growth and development, nursing skills, and pharmacology, as well as medical-surgical, maternal-neonatal, pediatric, and psychiatric-mental health nursing. The book is written in a student-friendly style and has an attractive full-color design, with numerous illustrations, tables, and boxes. Bound-in multimedia CD-ROMs include audio pronunciations, clinical simulations, videos, animations, and a simulated NCLEX-PN® exam. This edition's comprehensive ancillary package includes curriculum materials, PowerPoint slides, lesson plans, and a test generator of NCLEX-PN®-style questions.

male reproductive system: Male Reproductive System Moran, 1989-01-01

male reproductive system: Anatomy and Physiology of Farm Animals Rowen D. Frandson, W. Lee Wilke, Anna Dee Fails, 2009-06-30 The Seventh Edition of Anatomy and Physiology of Farm Animals is a thoroughly updated and revised version of this classic text. Drawing on current science and terminology with a number of new illustrations throughout and a new chapter on poultry, the book maintains its reputation for clarity, balanced scope, and breadth of content. The Seventh Edition provides veterinary, animal science, agriculture, and veterinary technician students with a comprehensive yet clear reference to understanding the fundamentals of anatomy and physiology.

male reproductive system: *Medical Terminology Made Incredibly Easy!* , 2008-06-01 Written in the award-winning, lighthearted Incredibly Easy! style, this book is an excellent aid to understanding and retention of medical terminology. The first chapter focuses on key concepts of medical terminology, including common word components. Subsequent chapters cover individual body systems, providing in-depth definitions that connect words to their meanings. This Third Edition features new chapters on obstetric and mental health terms and expanded Pump Up Your Pronunciation charts. Two eight-page full-color inserts offer a closer look at anatomical terminology. A companion Website offers student and instructor ancillaries including a pronunciation guide with hundreds of terms, Pump Up Your Pronunciation study cards, practice exercises, PowerPoint presentations, and a test generator. Online Tutoring powered by Smarthinking--Online tutoring, powered by Smarthinking, gives students access to expert nursing and allied health science educators whose mission, like yours, is to achieve success. Students can access live tutoring support, critiques of written work, and other valuable tools.

male reproductive system: Maternity and Pediatric Nursing Susan Scott Ricci, Terri Kyle, 2009 Authors Susan Ricci and Terri Kyle have teamed up to deliver a unique resource for your students to understand the health needs of women and children. This new combination book, Maternity and Pediatric Nursing, will empower the reader to guide women and their children toward higher levels of wellness throughout the life cycle. The textbook emphasizes how to anticipate, identify, and address common problems to allow timely, evidence-based interventions. Features include unfolding case studies throughout each chapter, multiple examples of critical thinking, and an outstanding visual presentation with extensive illustrations depicting key concepts. A bound-in CD-ROM and a companion Website include video clips and NCLEX®-style review questions.

male reproductive system: Clinical Anatomy and Physiology Laboratory Manual for Veterinary Technicians Thomas P. Colville, Joanna M. Bassert, 2009-01-01 Reinforce the A&P

principles you've learned in Clinical Anatomy & Physiology for Veterinary Technicians, 2nd Edition with this practical laboratory resource. Filled with interactive exercises, step-by-step procedure guidelines, and full-color photos and illustrations, this lab manual is designed to help you understand A&P in relation to your clinical responsibilities as a veterinary technician and apply your knowledge in the laboratory setting. A comprehensive approach builds on the concepts presented in Clinical Anatomy & Physiology for Veterinary Technicians, 2nd Edition to strengthen your anatomical and physiological knowledge of all major species. Engaging, clinically oriented activities help you establish proficiency in radiographic identification, microscopy, and other essential skills. Step-by-step dissection guides familiarize you with the dissection process and ensure clinical accuracy. Clinical Application boxes demonstrate the clinical relevance of anatomical and physiological principles and reinforce your understanding. Full-color photographs and illustrations clarify structure and function. A renowned author team lends practical guidance specifically designed for veterinary technicians. A detailed glossary provides quick access to hundreds of key terms and definitions.

male reproductive system: Introduction to Sex Gilad James, PhD, The concept of sex has been a topic of interest and discussion for centuries. It is defined as a biological process that enables living organisms to reproduce by combining genetic material from two individuals. Sexual reproduction involves the transfer of genetic material from a male gamete, such as sperm, to a female gamete, such as an egg. This process can occur through various means, including sexual intercourse, artificial insemination, and in vitro fertilization. Sex is not only a biological process, but it also has social and cultural implications. Societies throughout history have placed various taboos and restrictions on sexual behavior, and the concept of sex has been subjected to moral scrutiny. Additionally, gender identity and sexual orientation are significant factors in sexual behavior and identity. Gender identity refers to one's sense of being male or female, while sexual orientation refers to the gender(s) to which a person is attracted. Together, these factors shape individual experiences of sex and sexuality, highlighting the complex interplay between biological, social, and cultural factors.

male reproductive system: Human Physiology and Health David B. Wright, 2000 This human biology text covers the Human Physiology and Health GCSE syllabuses (NEAB and SEG) and is suitable for GNVQ Health and Social Care. It is written for post-16 students who may have struggled with science GCSEs, or are studying the subject with a particular vocational focus.

male reproductive system: Medical Terminology Systems Barbara A Gylys, Mary Ellen Wedding, 2017-03-20 You'll begin by learning the parts of word roots, combining forms, suffixes, and prefixes. Then, use your understanding of word parts to learn medical terminology. Mnemonic devices and engaging, interactive activities make word-building fun and easy, ensuring you retain the information you need for success.

male reproductive system: 2018 ICD-10-PCS Standard Edition - E-Book Carol J. Buck, 2017-08-09 - UPDATED 2018 Official Code set reflects the latest ICD-10 codes needed for diagnosis coding.

male reproductive system: *2018 ICD-10-PCS Professional Edition - E-Book* Carol J. Buck, 2017-07-22 - Updated 2018 Official Code set reflects the latest ICD-10 codes needed for diagnosis coding. - New Non-Operating Room Procedure symbols identify procedures that do and do not affect MS-DRG assignment.

male reproductive system: 2016 ICD-10-PCs Professional Edition Carol J. Buck, 2014-10-10 Select and build procedure codes accurately with Carol J. Buck's 2016 ICD-10-PCS: Professional Edition. Designed by coders for coders, this full-color manual includes all the ICD-10-PCS codes needed for today's inpatient procedure coding. As coders need more extensive knowledge to work with ICD-10-PCS - and to choose from the thousands of possible codes - this edition provides an essential background in A&P, pathology, and medical terminology, along with colorful Netter's Anatomy illustrations and tables organized to help you choose and build procedure codes. Together with the durable spiral binding, these features make professional coding faster and

easier. Also included is a companion website with the latest coding news and updates! UNIQUE! Full-color Netter's Anatomy art is provided in the front of the book to help you understand complex anatomic information and how it may affect choosing codes. Official Guidelines for Coding and Reporting (OGCRs) are listed in full for fast, easy access to coding rules. Convenient Guide to the Updates lists all new, revised, and deleted codes, providing at-a-glance lookup of the annual changes. American Hospital Association's Coding Clinic? citations include official ICD-10-PCS coding advice relating to specific codes and their usage. Hospital Acquired Condition (HAC) symbol notes procedures related to HACs as outlined in the MS-DRG v32. Symbols for Noncovered and Limited Coverage procedures indicate related material outlined in the Definitions of Medicare Code Edits, v32. Sex edits from the Definition of Medicare Code Edits denote codes that are used only with patients of a specific sex. Codingupdates.com companion website includes the latest changes to the ICD coding system. NEW! 2016 ICD-10-PCS: Professional Edition replaces Carol Buck's ICD-9-CM, Volume 3; this manual includes 16 sections filled with tables to help you determine selection of inpatient procedure codes. UPDATED 2016 Official Code set reflects the latest ICD-10-PCS codes needed for procedure coding.

male reproductive system: 2016 ICD-10-PCS Professional Edition - E-Book Carol J. Buck, 2015-11-12 - NEW! 2016 ICD-10-PCS: Professional Edition replaces Carol Buck's ICD-9-CM, Volume 3; this manual includes 16 sections filled with tables to help you determine selection of inpatient procedure codes. - UPDATED 2016 Official Code set reflects the latest ICD-10-PCS codes needed for procedure coding.

male reproductive system: 2015 ICD-10-PCS Draft Edition - E-Book Carol J. Buck, 2015-01-01 - NEW! Updated 2015 Draft Code set includes the ICD-10 codes needed for procedure coding and reflects the June 2014 code updates. - NEW format is specifically designed to meet the needs of professional procedure coding. - NEW! Hospital Acquired Condition (HAC) symbol alerts you to procedures related to HACs as outlined in the MS-DRG v31. - NEW! Symbols for female- and male-only related procedures are included. - NEW! Symbols for Noncovered and Limited Coverage procedures are included, as outlined in the Definitions of Medicare Code Edits, v31.

Related to male reproductive system

male,female□man,woman□□□□ - □□ male□female□□□□□□□□□—— male□□□□□□□□□□□□□□□□□□□□□□□□□female□□□□□□□□□□□□□ □□□□□□□□□male□□□□□□□□□□□□□□□

□□□omega□beta□alpha□ABO□□□□□□□□□□□□□□ ABO□□□AB0□□□□□□□□□□□□□□□□Alpha□Omega, Beta□□□□□□□□alpha□□□□□□□□□□□□ omega□□□□□□□□□□□□□□□□ beta□□□□□□□□□□

□□□□□□□□□ - □□ "□□□□□"□sigma male□□□□□□□□□□□□ □□□□□□□□□□□□□□□ 2010□□□□□□□□□□□□□□□□□□□□□Theodore Robert Beale□□□Vox Day□□□□□□□

□□□□ Ao Wang□Quanming Liu □□□□□□□□□□□□□□ □□□□ Ao Wang□Quanming Liu □□□□□□□□□□□□□□□□□□□□□□□□□ □□□□□ JIMR □□□□□A Study on Male Masturbation Duration Assisted by Masturbat □□□

□□□□□□□□□□□□□□ - □□ □□□ □cis-gender□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□ □□□ □trans-gender□□ □□ □□□□"□ "□□□□□□□□□□□□□□"□□□□□"□□□□□

BNC□□□□□□□□□□□□□□□□□□ - □□ BNC□□□□□□ □□□□□ □□□□□□□□□□□□□□□□□□□□□□□□□□□□ BNC□□□□□□□□□□□4-4GHz, □□□□□2□□50□□□75□□□ BNC□□□□□□□□□

□□□□□□□□□m□f□□□□□□□□□□□□□□□□ □□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□ F□Female□□□□□□□□□□□□□□□□□□ □□□ □□□□□ M□Male□□□□ □□□ □□□□□ P □□

□□man□□□woman□□□wo□□□□□□□□□□female □□□□□man□woman□male□female□□□□□□ □□□□□ man——M+an□woman——wom+an□ □□□□womb□wombat □□

□□□□□□□□□□□□sigma male□ - □□ □□□□□□□□□□□□□sigma male□ sigma male□□□□□□□□□ □□meme□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□ □□□□ □□□ 38

□□□□sex□□□gender□□□□□□□ - □□ Sex = male and female Gender = masculine and feminine So in essence: Sex refers to biological differences; chromosomes, hormonal profiles, internal and external sex organs.

male,female□man,woman□□□□ - □□ male□female□□□□□□□□□—— male□□□□□□□□□□□□□□□□□□□□□□□□

□female□□□□□□□□□□□□ □□□□□□□□□male□□□□□□□□□□□□□□□

□□□**omega□beta□alpha□ABO**□□□□□□□□□□□□□ ABO□□□AB0□□□□□□□□□□□□□□□□□Alpha□Omega, Beta□□□□□□□□alpha□□□□□□□□□□□ omega□□□□□□□□□□□□□□□□ beta□□□□□□□□□□

□□□□□□□□□ **-** □□ "□□□□□"□sigma male□□□□□□□□□□□□ □□□□□□□□□□□□□□□ 2010□□□□□□□□□□□□□□□□□□□□□Theodore Robert Beale□□□Vox Day□□□□□□□

□□□□ **Ao Wang□Quanming Liu** □□□□□□□□□□□□□ □□□□ Ao Wang□Quanming Liu □□□□□□□□□□□□□□□□□□□□□□□□ □□□□□ JIMR □□□□□A Study on Male Masturbation Duration Assisted by Masturbat □□□

□□□□□□□□□□□□□□ **-** □□ □□□ □cis-gender□□□□□□□□□□□□□□□□□□□□□□□□□□□□ □□□ □trans-gender□□ □□ □□□"□ "□□□□□□□□□□□□□□"□□□□□"□□□□□

BNC□□□□□□□□□□□□□□□□□ **-** □□ BNC□□□□□□ □□□□□ □□□□□□□□□□□□□□□□□□□□□□□□□□□□ BNC□□□□□□□□□□□4-4GHz, □□□□□2□□50□□□75□□□ BNC□□□□□□□□□□

□□□□□□□□□□**m□f**□□□□□□□□□□□□□□□□□ □□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□ F□Female□□□□□□□□□□□□□□□□□□ □□□ □□□□□ M□Male□□□□ □□□ □□□□□ P □□

□□**man**□□□**woman**□□□**wo**□□□□□□□□□□**female** □□□□□man□woman□male□female□□□□□□ □□□□□ man——M+an□woman——wom+an□ □□□□womb□wombat □□

□□□□□□□□□□□□**sigma male**□ **-** □□ □□□□□□□□□□□□□sigma male□ sigma male□□□□□□□□□ □□meme□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□ □□□□ □□□ 38

□□□□**sex**□□□**gender**□□□□□□□ **-** □□ Sex = male and female Gender = masculine and feminine So in essence: Sex refers to biological differences; chromosomes, hormonal profiles, internal and external sex organs.

male,female□man,woman□□□□ **-** □□ male□female□□□□□□□□—— male□□□□□□□□□□□□□□□□□□□□□□□female□□□□□□□□□□□□ □□□□□□□□□male□□□□□□□□□□□□□□□

□□□**omega□beta□alpha□ABO**□□□□□□□□□□□□□ ABO□□□AB0□□□□□□□□□□□□□□□□□Alpha□Omega, Beta□□□□□□□□alpha□□□□□□□□□□□ omega□□□□□□□□□□□□□□□□ beta□□□□□□□□□□

□□□□□□□□□ **-** □□ "□□□□□"□sigma male□□□□□□□□□□□□ □□□□□□□□□□□□□□□ 2010□□□□□□□□□□□□□□□□□□□□□Theodore Robert Beale□□□Vox Day□□□□□□□

□□□□ **Ao Wang□Quanming Liu** □□□□□□□□□□□□□ □□□□ Ao Wang□Quanming Liu □□□□□□□□□□□□□□□□□□□□□□□□ □□□□□ JIMR □□□□□A Study on Male Masturbation Duration Assisted by Masturbat □□□

□□□□□□□□□□□□□□ **-** □□ □□□ □cis-gender□□□□□□□□□□□□□□□□□□□□□□□□□□□□ □□□ □trans-gender□□ □□ □□□"□ "□□□□□□□□□□□□□□"□□□□□"□□□□□

BNC□□□□□□□□□□□□□□□□□ **-** □□ BNC□□□□□□ □□□□□ □□□□□□□□□□□□□□□□□□□□□□□□□□□□ BNC□□□□□□□□□□□4-4GHz, □□□□□2□□50□□□75□□□ BNC□□□□□□□□□□

□□□□□□□□□□**m□f**□□□□□□□□□□□□□□□□□ □□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□ F□Female□□□□□□□□□□□□□□□□□□ □□□ □□□□□ M□Male□□□□ □□□ □□□□□ P □□

□□**man**□□□**woman**□□□**wo**□□□□□□□□□□**female** □□□□□man□woman□male□female□□□□□□ □□□□□ man——M+an□woman——wom+an□ □□□□womb□wombat □□

□□□□□□□□□□□□**sigma male**□ **-** □□ □□□□□□□□□□□□□sigma male□ sigma male□□□□□□□□□ □□meme□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□ □□□□ □□□ 38

□□□□**sex**□□□**gender**□□□□□□□ **-** □□ Sex = male and female Gender = masculine and feminine So in essence: Sex refers to biological differences; chromosomes, hormonal profiles, internal and external sex organs.

male,female□man,woman□□□□ **-** □□ male□female□□□□□□□□—— male□□□□□□□□□□□□□□□□□□□□□□□female□□□□□□□□□□□□ □□□□□□□□□male□□□□□□□□□□□□□□□

□□□**omega□beta□alpha□ABO**□□□□□□□□□□□□□ ABO□□□AB0□□□□□□□□□□□□□□□□□Alpha□Omega, Beta□□□□□□□□alpha□□□□□□□□□□□ omega□□□□□□□□□□□□□□□□ beta□□□□□□□□□□

□□□□□□□□□ **-** □□ "□□□□□"□sigma male□□□□□□□□□□□□ □□□□□□□□□□□□□□□ 2010□□□□□□□□□□□□□□□□□□□□□Theodore Robert Beale□□□Vox Day□□□□□□□

□□□□ **Ao Wang□Quanming Liu** □□□□□□□□□□□□□ □□□□ Ao Wang□Quanming Liu □□□□□□□□□□□□□□□□□□□□□□□□ □□□□□ JIMR □□□□□A Study on Male Masturbation Duration Assisted by Masturbat □□□

□□□□□□□□□□□□□□ **-** □□ □□□ □cis-gender□□□□□□□□□□□□□□□□□□□□□□□□□□□□ □□□ □trans-gender□□ □□ □□□"□ "□□□□□□□□□□□□□□"□□□□□"□□□□□

BNC□□□□□□□□□□□□□□□□□□□□□ - □□ BNC□□□□□□□ □□□□□□ □□□□□□□□□□□□□□□□□□□□□□□□□□□□□ BNC□□□□□□□□□□□ □4-4GHz, □□□□□□2□□50□□□75□□□ BNC□□□□□□□□□□

□□□□□□□□□□□**m□f**□□□□□□□□□□□□□□□□□ □□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□ F□Female□□□□□□□□□□□□□□□□□□ □□ □□□ □□□□□□ M□Male□□□□ □□□ □□□□□□ P □□

□□**man**□□□**woman**□□□**wo**□□□□□□□□□□□□**female** □□□□□man□woman□male□female□□□□□□□ □□□□□□ man——M+an□woman——wom+an□ □□□□womb□wombat □□

□□□□□□□□□□□□□□**sigma male**□ **-** □□ □□□□□□□□□□□□□□□sigma male□ sigma male□□□□□□□□□□□ □□meme□□□□□□□□□ □□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□ □□□□ □□□ 38

□□□□**sex**□□□**gender**□□□□□□□□ **-** □□ Sex = male and female Gender = masculine and feminine So in essence: Sex refers to biological differences; chromosomes, hormonal profiles, internal and external sex organs.