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# *The Beneficial Effects of Hormonal-Replacement Treatment (HRT) on Osteoporosis and Its Complication on Female Albino Rats*

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# التأثيرات الايجابية للعلاج التعويضي الهرموني على مشاشة العظام ومضاعفاتها على إناث الجرذان البيضاء

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بسم الله الرحمن الرحيم
وعلمك ما لم تكن تعلم
وكان فضل الله عليك عظيما
سورة النساء (113)

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## List of abbreviation

| | |
|---|---|
| **ACAT** | Acyl-Co A cholesterol acyl transferase |
| **AMP** | Adenosine – 5 – monophosphate |
| **ATP** | Adenosine – 5 – triphosphate |
| **AR** | Androgen receptor |
| **AST** | Aspartate aminotransferase |
| **BMC** | Bone mineral content |
| **BMD** | Bone mineral density |
| **CT** | Calcitonin |
| **$Ca^{2+}$** | Calcium |
| **CNS** | Central nervous system |
| **CK** | Creatine kinase |
| **DVT** | Deep vein thrombosis |
| **DHEA** | Dehydroepiandrosterone |
| **DNA** | Deoxyribonucleic acid |
| **DHT** | Dihydrotestosterone |
| **DEXA** | Dual-energy X-ray absorptiometry |
| **ETBR** | Endotheline type B receptor |
| **ESR** | Erythrocyte sedimentation rate |
| **$E_2$** | Estradiol |
| **$E_3$** | Estriol |
| **ER** | Estrogen receptor |
| **ERT** | Estrogen replacement therapy |
| **EREs** | Estrogen response elements |
| **$E_1$** | Estrone |
| **ECF** | Extracellular fluid |
| **FFA** | Fatty acid |
| **FSH** | Follicle-stimulating hormone |
| **FDA** | Food and Drug Administration |
| **cGMP** | Guanosine 3, 5-cyclic monophosphate |
| **HRT** | Hormone replacement therapy |
| **HRE** | Hormone response elements |
| **HT** | Hormone therapy |
| **HCG** | Human chorionic gonadotropin |
| **HPGA** | Hypothalamus-pitutary-gonadal axis |

| | |
|---|---|
| **IM** | immobilization |
| **IGF-1** | Insulin growth factor-1 |
| **ISOBM** | International Society for Oncodevelopment Biology and Medicine |
| **ICF** | Intracellular fluid |
| **LDH** | Lactae dehydrogenase |
| **LH** | Luteinizing hormone |
| **$Mg^{2+}$** | Magnesium |
| **mPR** | Membrane progesterone-binding sites |
| **$CH_3$** | Methyl radical |
| **MCA** | Monoclonal antibodies |
| **M** | Muscle |
| **MI** | Myocardial infarction |
| **NPH** | Neuropeptide hormone |
| **NAD** | Nictinamid adenine dinucleotide |
| **OVX** | Ovariectomy |
| **OTR** | Oxytocin receptor |
| **PTH** | Parathyroid hormone |
| **PE** | Persistent estrus |
| **$K^+$** | Potassium |
| **KCl** | Potassium chloride |
| **PMS** | Premenstrual syndrome |
| **PTM** | Proximal tibia |
| **$RBS_c$** | Red blood corpuscles |
| **$Na^+$** | Sodium |
| **STD** | Standard |
| **SD** | Standard deviation |
| **$T_4$** | Thyroxin |
| **TD** | Tissue Differentiation |
| **$T_3$** | Tri-iodothyronine |
| **VX** | Vertebral fractures |
| **WBCs** | White blood cells |
| **WHI** | Women's Health Initiative |
| **WHO** | World Health Organization |