

# [Altered and disordered physiology](https://assignbuster.com/altered-and-disordered-physiology/)

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The tradional classification and Molecular biology
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The Endocrine System constitutes the secretion of hormones and regulates the glands in the body. The Glands that are secreted are Thyroiod Glands, Pituitory Glands, Insulin secreted from pancreas, Adernal Glands , and testicals. If the secretion of hormones is taken place directly to the blood stream it ends in disorders. This disorderd secretyion of hormones and glands might lead to diseases like stroke, cardiovascular disease, respiratoey diseases, imbalanced secretion of thyroid gland leads to swelling of the organs etc. The hormone balance is one of the nessaryu factors that reaches the bone mass. If the secretion is not proper such as hyper secretion [increase in secretion], or hyposecretion [decrease in secretion] might resuly in growth disorders.
The secretion is classified as hyper secretion and hypo secretion depending on the amount of hormones secreted. The results ends in affceting the growth. For example hyper secretion reults in gigantism in chidren, and acromegaly in adults. Hypo secretion of hormones happens in glands like piptutory gland , the disordered secretion results in dwarfism during childhood, and also reduses long bone growth. The disorder in pancreas leads to diabetes insipidus. Etc.
b.
Tradionally scientisits classified the endocrine disorders into hyper and hypo secretion according to the imbalance in hormones and glands secretion and disorders into primary and secondary disorders. The thyroid glands has the disorder of hyothyroidism and hyperthyroidism. Similarly the insulin secretion resuots in primary and secondary diabets level. The primary hyperthyroiism results in a stage where excess of parathyroid
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hormones are produced , where as the hypothyroidism results in secondary hypothroidism results due to low secretion of hormones.
But now a days with the advent of molecular biology the classifaction that was insisted based on hyper and hypo secretion of glands and hormones seem to be inappropriate as the scientists review the endocrine secretion in terms of the genes that is present in the cells. This method helps in the detailed analysis of the glands with the help of the characteisitcs of the particular gene.
Molecular biologists discovered the mehanism of the chromosomes pairng and seperation that helped them in understaning what are the techniques that could be appointed to review the genes. To be more precise the invention of DNA helix, the gene expression was understood clearly and this included the protein synthesis also. So the molecular biology helps a lot in understanding the pattern of the secretion with the help of the DNA in the chromosomes. Wikiepedia [2006] says that “ Molecular biology chiefly concerns itself with understanding the interactions between the various systems of a cell, including the interactions between the various systems of a cell, including the interrelationship of DNA, RNA, and protein synthesis and learning how these interactions are regylated” http://en. wikipedia. org/wiki/Molecular\_biology
Standfrod [2005] says that “ The question of whether classical genetics could be [or alreay has been reduced to molecular biology motivated philosophers to consider the connectibility of the termthat they shared: the gene” Thi argument probably supports the view that the traditional classification of the endocrine disorders as hyper and hypo secretion into primary and secondary disorders seems not matching as the traditional methods do not apply the method of gene study or DNA .
References:
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Standford Encyclopedia of Phisolsophy . “ Molecular Biology”. Online available from http://plato. standford. edu/entries/molecular-biology/#3. 1#3. 1