Multiple Births Essay, Research Paper

Multiple BirthsMultiple births are rare in humans with twins as being the most common form of thisevent. Multiple births can arise in many different combinations of ways but theprobability of giving birth to more than one child remains fairly constant when comparedto the entire human race. The chances of multiple births can also vary from race andgenetic background. Scientist and researchers do not know what the exact cause of thesevariations is but many of them feel that it is caused by hormone differences betweendifferent racial groups and/or the difference in social class. The prenatal and infant mortality is much higher in multiple pregnancies than inpregnancies that only involves one child. The danger of premature birth also increasedwith the higher number of offspring that are involved. In many multiple births, not all ofthe children survived to childhood or were born dead. Through the advances intechnology, the survival rate of infants born in a multiple pregnancy has increased. Thefirst quintuplets, five babies born in a single pregnancy, to survive in medical historywere the Dionne quintuplets. The use of drugs that treat female sterility, or fertility drugs, may increase thechances of giving birth to multiple children. These drugs cause the ovaries to release anegg once a month but in some cases they release more than one egg, sometimes releasingseveral at a time, increasing the chances of a multiple birth. The drug clomiphene citrateis one of the most widely taken fertility drug and has resulted in the birth of twins aboutonce in every twelve births, much greater than the chances of the birth of natural twins. Twins are the most common form of a multiple pregnancy. About one ineighty-seven births result in the birth of twins. Twins can be fraternal, also known asdizygotic twins, or identical, also called monozygotic twins, with the birth of identicaltwins being the rarest, occurring about four times in every thousand births, aboutone-forth as often as the birth of fraternal twins. This ratio of the birth of twins to thetotal number of births remains fairly constant but the birth of fraternal twins can altergreatly. Fraternal twins are most common among black African followed by people ofEuropean origin. Asian races originating from the orient are the least likely to give birthto fraternal twins. The birth of twins can occur in two different ways, the fertilization of a single eggor the fertilization of two eggs. In the case of dizygotic twins, the woman’s ovariesrelease two eggs about the same time instead of one, with each being fertilized by themale’s sperm, fraternal twins begin to develop. The two zygotes develop differently, eachhaving a different genetic coding. They can be both boys, both girls, or a single boy anda single girl. Because each embryo develops on its own from different geneticcharacteristics, dizygotic twins resemble family characteristics as do brother and sister. The birth of monozygotic twins takes place much differently than do the births offraternal twins. Identical twins originate from a single egg, fertilized similarly to that ofa single pregnancy. A change transpires early in the pregnancy that causes the

development of identical twins. The change from a single birth to the birth ofmonozygotic twins occurs when the zygote ruptures into two separate structures. Thesetwo parts begin to develop into individual fetuses, sharing a similar genetic code anddeveloping in a similar manner. Identical twins are of the same sex, resemble each othervery closely, and have similar fingerprints and blood types. Scientists also believe that Siamese twins, also known as conjoined twins,develop in a similar fashion as do monozygotic twins. Siamese twins are identical twinswith the difference that the zygote did not divide completely during their development.Such twins are usually joined at the hip, chest, abdomen, buttocks, or head. With currentmonitoring equipment, conjoined twins can be detected maturing in the mother andduring birth a Cesarean section is sometimes needed to deliver the children safely.Separation of the twins sometimes leads to the death of one or both of the twins. Thisbirths are a rare event, occurring only about once in every fifty-thousand births. Other forms of multiple births such as triplets, quadruplets and quintuplets, occurvery similarly to the birth of twins. Births of triplets are rarer than the birth of twins,occurring approximately once in every seven-thousand nine-hundred births. The birth oftriplets can occur in a combination of ways. If the zygote divides into three separatestructures in the early stages of development, identical twins will be born. If a two cellsare fertilized and one divides into two structures as in monozygotic twins, the birth of apair of identical twins will be born along with a single infant. If the ovaries release threeeggs, which are then fertilized, then the birth of fraternal triplets will occur. The same level of combinations can be observed in the development ofquadruplets, quintuplets, and the very rare occasion of a pregnancy of six children. Thebirth of quadruplets only takes place once in every seven-hundred and five thousandbirths and quintuplets are born once in every eight million births. The birth of six infants is sorare that accurate statistics cannot be made while compared to the total amount of birthsaround the world. In all of these forms of multiple pregnancies, the process is verysimilar. If the woman’s ovaries release four or five eggs then the birth of quadruplets orquintuplets will arise. If the cell divides into four of five structures will then cause thepregnancy of identical quadruplets or quintuplets. These and numerous othercombinations can occur as the number of infants involved increases. Multiple pregnancies are a rare occasion, one of the factors for the incompletestatistics of the birth of a six child pregnancy. The number of infants born in multiplebirths, as well as larger births consisting of six or more children, are also increasing dueto the use of fertility drugs. This widespread use is forcing researchers not to accept anymultiple births that were endorsed by drugs as part of the general statistics. Some aspectsof multiple births are still not clear to scientist. The difference between the probabilitiesof multiple pregnancies of women of different races is just one of these problems. Moreabout multiple births has been learned over the ages but more is still to be learned and tested byscientists.

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