# Chaos Theory and Its Application in Medicine

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Chaos theory refers to the action that appears at the random, unpredictable order or behavior that cannot be forecasted. Sometimes the framework is associated with mathematics or physics only; however, it could be found in different spheres, including medicine (Solomon et al., 2020). In biology and medicine, chaos theory can be employed to investigate the functioning of complex systems, such as the nervous system (Solomon et al., 2020). The possible outcomes could be calculated using the correlation dimension of the system sample predicting arrhythmias or epileptic seizures (Solomon et al., 2020). In our organization, we can observe one of the cases where the theory is applicable. The patient was delivered with a heart attack that required urgent hospitalization. However, the problem was that he had a pinched nerve in the back that distributed the whole system. Here, the medical staff was in a complicated situation due to the uncertainty of the problem. As the case was urgent, medical workers had to calculate standard indicators that covered reducing the standard deviation of heartbeats intervals. After the calculation, it was decided to eliminate the nerve pump and then conduct heart surgery. As a result of the healthcare workers' actions, the patient survived and left the hospital.

Regarding Lewin's change theory and its possible implementation range, it could be seen that this model is convenient in emergencies. The model developed by Kurt Lewin includes a three-stage model covering unfreezing-change-refreeze steps (Crosby, 2020). Unfreezing indicates the process that allows refreshing the old pattern. Speaking about the case, the decision to eliminate the nerve pump because of its negative influence was accepted. The change stage involves actions and thoughts that will create a productive environment (Crosby, 2020). Regarding the patient, the heart surgery was made to attain the positive change. The refreezing stage introduces new habits that become should become normal. For this reason, specialists stabilized the patient and guaranteed the appropriate work of the heart. This strategy should be implemented in medical practice with high uncertainty.

# **Manual Medicine Chaos Theory**

**Michael Brown** 

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web the fifteen elements shown in table pageindex 1 from lanthanum la 4f 0 to lutetium lu 4f 14 are lanthanoids ln may be used as a general symbol for the lanthanoid elements although lanthanoids scandium sc and yttrium y are sometimes called rare earth elements they are relatively abundant in the earth s crust

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web nov 1 1998 production of lanthanides has shown a continuous increase in recent years 50 taking all these facts into account it is reasonable to consider the development of corrosion protection methods using this family of compounds at first the lanthanide elements principally cerium were used in protection against corrosion at high

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web jan 1 2000 powell describes displacement chromatography and elution chromatography as the two principal methods for separating lanthanide cations by ion exchange chromatography in displacement chromatography the ions to be separated are first sorbed onto a col umn of the resin the analyte metals are eluted from the column

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web feb 4 2021 the lanthanides are located on the top row of the two rows of elements found below the main body of the periodic table placing the lanthanides and the actinides the row below the lanthanides below the other elements is just a matter of aesthetics the lanthanides belong to period 6 like cesium barium and hafnium