Please I want a summary of this It's another safety feature whereby the electric, the Electro surgical generator or dye thermal unit has been described as the most hazardous device used on a daily basis in the operating theatre.We will deal firstly with monopolar electrosurgery, having established that the high frequency AC prevents neuromuscular stimulation.You should ensure that a well vascularized muscle mass is chosen and that you avoid areas of vascular insufficiency, irregular body contours and Bony prominences and also consider the incision site and prep area, the patient position and other equipment on the patient.The voltage used in cut is substantially lower than in coagulation mode, with peak voltages ranging from approximately 1300 to 2300 volts to give the hemostasis associated with coagulation.Electro surgical generators deliver a much higher frequency, around 400 to 500 kHz and it is this that prevents neuromuscular stimulation and allows the current to pass safely through the body.Coagulation is useful where tissue is oozing and may be used to desiccate tissue, where the instrument is used in direct contact with the tissue or full grade where the voltage is increased, the instrument held slightly above the tissues and the sparks allowed to jump across the gapLow frequency current such as the mains, which alternates 50 times per second or at 50 Hertz, leads to neuromuscular stimulation and potential cardiac arrest.Therefore, should the patient return electrode become detached from the skin, the current may leave the body by any number of routes, for example the operating table or ECG electrodes, causing burns at these points due to current concentration.With this in mind, we will take a few minutes to tell you about the hazards involved in using Electro surgical equipment, give you an insight into how it works and give you some basic knowledge to encourage practice in the theatre.The key factor that allows the use of Electro surgery is that the current from the generator is high frequency alternating current.Most Electro surgical generators in the UK are what is termed isolated.The major potential hazard with the older style of grounded generators is that the current flowing through the patient will not preferentially look for the patient return electrode to complete the circuit.Remember that although you as the surgeon may not apply the patient return electrode, it is your responsibility to ensure that it is properly applied, so you should be aware of some basic principles relating to the pad.There are two important differences between these the time the current is actually supplied by the generator and the voltage to achieve the precise clean cut one gets.There are two methods of applying electrosurgery, monopolar and bipolar.However, if the system you are using is not an isolated one, you must take special care to ensure the patient return electrode is properly applied and checked throughout the operation.