

DNA Repair Mechanisms Handout

As you work your way through the DNA repair mechanisms videos, answer the following questions to help you collect the relevant information.

1.	What is the consequence of thymine dimers?
2.	What is the name of the repair enzyme involved in eliminating thymine dimers? What is its mechanism of function?
3.	What is the name of the enzyme that eliminates methylation events? What is its mechanism of function?
4.	What are the names of the set of proteins involved in the nucleotide excision repair process?
5.	What other proteins are involved in this repair process?



6.	Explain how the process of nucleotide excision repair works.
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/.	In methyl-directed mismatch repair, what protein recognizes a base-pair mismatch. How does it do so?
	now does it do so.
8.	What other proteins are involved in the repair process? Describe the function of each.



9. Many products that we interact with and ingest have mutagenic effects. Two in particular – cigarettes and alcohol – have well-established links to cancer. Why are both of these products still sold, while other products are removed with less data to support or refute the continued sale of cigarettes and alcohol in Ontario.