

BALTIMORE, MARYLAND																		
Monthly, Seasonal, and Annual Average Maximum Temperatures																		
(in degrees Fahrenheit)																		
Period of Record: 1872-Present																		
YEAR	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	ANNUAL	WINTER (Dec-Feb)	SPRING (Mar-May)	SUMMER (Jun-Aug)	AUTUMN (Sep-Nov)	YEAR
1872								87.7	77.4	64.5	50.4	39.3					64.1	1872
1873	40.2	42.6	49.2	59.3	70.5	84.9	88.8	81.8	75.9	63.8	48.7	47.4	62.8	40.7	59.7	85.2	62.8	1873
1874	46.7	44.6	51.4	53.7	71.6	83.7	85.9	81.2	77.4	65.5	53.2	46.5	63.5	46.2	58.9	83.6	65.4	1874
1875	35.8	36.4	45.7	57.3	73.4	82.8	85.3	80.5	74.3	64.5	49.1	43.5	60.7	39.6	58.8	82.9	62.6	1875
1876	49.1	44.6	47.4	60.2	73.9	84.6	89.2	83.0	72.5	60.3	53.2	35.3	62.8	45.7	60.5	85.6	62.0	1876
1877	38.1	48.2	48.7	60.8	71.6	83.1	86.5	85.7	75.8	67.7	55.7	50.4	64.4	40.5	60.4	85.1	66.4	1877
1878	41.6	47.7	58.1	65.9	71.4	78.1	89.2	83.2	76.7	67.7	53.6	40.6	64.5	46.6	65.1	83.5	66.0	1878
1879	39.1	38.4	51.3	60.3	74.2	82.7	87.0	82.6	72.6	71.5	53.3	48.5	63.5	39.4	61.9	84.1	65.8	1879
1880	49.5	48.5	50.1	64.9	80.5	84.4	86.5	83.0	76.6	64.5	48.3	37.2	64.5	48.8	65.2	84.6	63.1	1880
1881	36.1	41.6	47.6	58.9	76.5	78.9	87.8	86.4	85.0	71.7	55.4	50.6	64.7	38.3	61.0	84.4	70.7	1881
1882	40.5	48.0	52.3	60.8	67.0	82.9	85.3	80.7	75.7	67.8	50.3	41.7	62.8	46.4	60.0	83.0	64.6	1882
1883	37.9	46.6	47.7	59.4	72.3	82.7	85.4	80.7	72.2	64.1	54.8	44.9	62.4	42.1	59.8	82.9	63.7	1883
1884	39.0	48.5	49.9	59.8	72.7	81.8	83.4	83.0	81.5	69.3	54.9	44.4	64.0	44.1	60.8	82.7	68.6	1884
1885	42.0	35.6	42.5	64.0	71.2	82.1	88.8	83.0	75.4	64.5	53.0	46.0	62.3	40.7	59.2	84.6	64.3	1885
1886	35.9	41.6	49.7	64.3	70.8	78.2	82.8	81.9	78.5	68.7	55.6	38.5	62.2	41.2	61.6	81.0	67.6	1886
1887	40.4	46.6	45.2	61.1	76.5	81.3	89.0	82.0	73.0	64.3	53.2	43.1	63.0	41.8	60.9	84.1	63.5	1887
1888	36.8	43.2	44.9	62.1	70.0	82.6	82.9	84.8	71.8	60.1	54.6	44.3	61.5	41.0	59.0	83.4	62.2	1888
1889	44.8	36.4	50.7	62.7	75.0	79.0	83.7	82.1	73.5	60.9	53.9	54.1	63.1	41.8	62.8	81.6	62.8	1889
1890	51.4	50.3	49.5	63.4	72.4	84.0	84.0	81.6	75.9	63.2	55.8	40.7	64.4	51.9	61.8	83.2	65.0	1890
1891	43.1	48.3	44.5	65.0	70.6	80.7	79.6	81.8	79.0	62.8	51.8	51.0	63.2	44.0	60.0	80.7	64.5	1891
1892	37.7	42.8	43.7	58.9	72.6	84.9	85.4	84.5	74.8	65.3	50.2	39.0	61.7	43.8	58.4	84.9	63.4	1892
1893	31.1	42.7	48.9	61.1	70.1	80.8	86.3	83.6	74.9	64.9	51.2	47.3	61.9	37.6	60.0	83.6	63.7	1893
1894	44.1	41.6	58.2	60.7	74.3	83.0	87.4	81.6	78.0	65.7	49.5	45.7	64.2	44.3	64.4	84.0	64.4	1894
1895	38.1	33.6	49.1	60.7	71.1	83.2	81.7	86.8	81.2	63.0	54.2	46.4	62.4	39.1	60.3	83.9	66.1	1895
1896	39.9	44.2	46.4	66.2	78.0	79.3	85.8	85.5	77.2	63.0	59.8	43.4	64.1	43.5	63.5	83.5	66.7	1896
1897	37.9	42.6	52.9	62.6	72.0	79.0	84.6	83.1	79.3	66.8	53.3	44.9	63.2	41.3	62.5	82.2	66.5	1897
1898	42.9	42.6	55.8	59.3	72.6	83.1	86.9	85.8	80.6	66.2	51.7	43.0	64.2	43.5	62.6	85.3	66.2	1898
1899	41.2	34.9	48.8	63.7	73.6	84.5	87.0	84.0	76.4	66.8	55.5	44.7	63.4	39.7	62.0	85.2	66.2	1899
1900	43.8	41.2	46.9	64.4	75.8	82.1	89.3	89.4	81.6	69.7	57.2	44.3	65.5	43.2	62.4	86.9	69.5	1900
1901	41.6	36.8	52.0	57.7	69.8	82.0	89.1	83.8	77.3	66.3	49.1	42.0	62.3	40.9	59.8	85.0	64.2	1901
1902	37.7	36.4	55.3	61.5	74.2	82.1	86.7	82.8	75.6	66.5	59.3	40.5	63.2	38.7	63.7	83.9	67.1	1902
1903	39.9	45.3	57.3	63.2	74.7	74.3	86.4	78.8	77.5	66.6	52.2	40.3	63.0	41.9	65.1	79.8	65.4	1903
1904	34.0	36.6	48.2	58.6	75.2	80.1	84.1	82.1	76.5	64.5	51.3	38.3	60.8	37.0	60.7	82.1	64.1	1904
1905	37.8	34.5	53.0	63.6	74.1	81.4	85.2	81.9	77.8	67.4	54.3	45.4	63.0	36.9	63.6	82.8	66.5	1905
1906	46.9	42.2	43.9	66.3	75.4	82.2	83.9	83.6	80.7	63.5	54.8	43.5	63.9	44.8	61.9	83.2	66.3	1906
1907	44.0	36.0	56.5	56.4	68.2	75.1	85.3	82.1	78.1	62.9	51.8	45.2	61.8	41.2	60.4	80.8	64.3	1907
1908	42.2	37.9	55.4	66.9	73.3	82.6	87.3	81.9	77.1	68.1	54.4	44.7	64.3	41.8	65.2	83.9	66.5	1908
1909	42.2	50.8	49.3	62.8	73.8	81.5	84.7	82.9	75.8	63.5	60.2	39.4	63.9	45.9	62.0	83.0	66.5	1909
1910	40.2	42.2	58.7	67.2	70.4	78.0	87.3	81.6	79.7	70.0	48.7	37.4	63.5	40.6	65.4	82.3	66.1	1910
1911	46.2	43.2	49.4	59.2	80.0	82.3	88.1	84.0	78.5	65.7	51.2	47.7	64.6	42.3	62.9	84.8	65.1	1911
1912	33.1	38.6	47.5	63.6	74.7	79.8	84.7	82.2	77.8	69.8	56.6	47.7	63.0	39.8	61.9	82.2	68.1	1912
1913	51.8	43.9	57.9	63.7	74.4	82.6	87.5	83.5	76.5	66.5	56.7	47.8	66.1	47.8	65.3	84.5	66.6	1913
1914	44.9	37.3	47.3	62.1	77.5	83.3	84.1	85.5	76.2	69.1	56.0	38.6	63.5	43.3	62.3	84.3	67.1	1914
1915	42.1	44.8	46.8	69.1	70.5	78.7	85.1	81.7	79.8	67.0	54.9	41.0	63.5	41.8	62.1	81.8	67.2	1915
1916	47.4	40.8	44.1	61.1	74.7	76.9	85.4	84.8	76.8	66.9	54.9	41.9	63.0	43.1	60.0	82.4	66.2	1916
1917	43.1	40.4	51.3	62.8	67.3	81.6	84.4	84.4	72.1	61.6	52.5	34.4	61.3	41.8	60.5	83.5	62.1	1917
1918	29.9	44.5	57.1	61.2	79.1	79.6	83.9	86.9	74.0	69.6	54.6	47.9	64.0	36.3	65.8	83.5	66.1	1918
1919	45.9	43.7	54.7	61.8	73.4	81.3	85.7	83.0	79.7	70.6	55.2	40.6	64.6	45.8	63.3	83.3	68.5	1919
1920	35.3	39.3	54.7	61.2	69.2	81.9	84.5	81.6	77.9	72.8	53.0	45.6	63.1	38.4	61.7	82.7	67.9	1920
1921	43.8	45.7	64.7	67.9	71.4	84.4	88.1	81.7	82.0	67.2	54.7	43.9	66.3	45.0	68.0	84.7	68.0	1921
1922	38.5	45.7	52.4	64.2	76.2	82.9	84.8	82.4	79.4	69.6	56.7	43.6	64.7	42.7	64.3	83.4	68.6	1922
1923	42.7	38.9	55.2	62.7	73.5	86.3	84.8	83.4	77.6	66.4	53.4	52.1	64.8	41.7	63.8	84.8	65.8	1923
1924	43.1	40.4	50.3	60.6	68.0	79.2	84.2	84.4	73.2	69.0	54.7	43.9	62.6	45.2	59.6	82.6	65.6	1924
1925	39.9	49.4	54.8	66.1	71.6	88.3	85.8	83.6	81.3	59.4	52.6	43.2	64.7	44.4	64.2	85.9	64.4	1925
1926	42.0	42.3	47.8	61.2	75.0	78.5	85.7	84.5	77.2	66.2	53.1	39.6	62.8	42.5	61.3	82.9	65.5	1926
1927	41.4	49.0	55.2	60.8	71.4	78.4	85											

1977	30.9	47.3	61.5	70.4	78.7	82.1	90.0	87.8	81.6	65.8	56.1	44.3	66.4	40.0	70.2	86.6	67.8	1977
1978	36.5	34.9	50.5	65.5	71.7	84.5	85.4	86.4	80.1	68.9	58.0	50.3	64.4	38.6	62.6	85.4	69.0	1978
1979	40.4	33.3	60.5	62.2	74.1	81.2	85.0	84.5	77.4	65.7	60.8	50.2	64.6	41.3	65.6	83.6	68.0	1979
1980	40.5	40.6	51.0	66.3	76.6	83.3	89.2	89.1	83.5	65.9	53.9	44.7	65.4	43.8	64.6	87.2	67.8	1980
1981	36.9	49.6	52.6	68.6	73.2	84.0	86.7	84.5	77.0	63.5	55.4	41.7	64.5	43.7	64.8	85.1	65.3	1981
1982	33.9	44.0	52.1	62.5	77.1	78.4	87.2	83.6	77.2	67.0	58.6	50.6	64.4	39.9	63.9	83.1	67.6	1982
1983	41.8	43.5	53.6	61.1	72.8	82.4	90.5	88.6	81.5	66.3	57.1	40.5	65.0	45.3	62.5	87.2	68.3	1983
1984	36.9	49.8	45.9	60.8	71.4	84.5	83.2	84.1	75.3	70.6	54.4	53.2	64.2	42.4	59.4	83.9	66.8	1984
1985	37.3	47.4	56.3	70.6	76.2	80.0	87.1	83.9	80.4	68.4	59.8	43.2	65.9	46.0	67.7	83.7	69.5	1985
1986	42.8	39.2	57.1	63.8	78.8	87.0	89.5	82.2	78.6	68.8	53.6	46.5	65.7	41.7	66.6	86.2	67.0	1986
1987	39.6	42.9	57.4	62.7	76.0	85.3	90.0	85.9	78.2	63.3	58.1	47.8	65.6	43.0	65.4	87.1	66.5	1987
1988	37.9	45.0	56.3	61.4	73.8	84.5	91.9	88.4	76.8	62.6	58.7	45.8	65.3	43.6	63.8	88.3	66.0	1988
1989	47.2	44.3	53.2	63.0	71.5	82.3	84.2	82.7	77.7	69.5	54.6	33.0	63.6	45.8	62.6	83.1	67.3	1989
1990	51.3	53.2	57.8	65.5	72.1	84.4	87.6	83.1	77.5	71.9	61.5	52.1	68.2	45.8	65.1	85.0	70.3	1990
1991	44.9	51.4	55.7	66.3	82.6	86.3	89.5	88.5	79.9	69.2	55.9	47.7	68.2	49.5	68.2	88.1	68.3	1991
1992	43.6	46.4	50.6	62.3	71.2	81.6	86.9	82.7	77.0	65.4	55.7	46.5	64.2	45.9	61.4	83.7	66.0	1992
1993	45.7	40.4	47.5	63.3	76.5	83.9	90.7	87.8	78.2	65.3	56.8	44.0	65.0	44.2	62.4	87.5	66.8	1993
1994	34.8	42.7	52.4	71.0	72.4	88.6	89.1	83.6	78.3	68.1	62.2	51.4	66.2	40.5	65.3	87.1	69.5	1994
1995	46.3	41.9	58.5	66.8	75.1	84.1	91.7	90.4	80.3	72.3	51.4	40.9	66.6	46.5	66.8	88.7	68.0	1995
1996	39.5	43.4	49.8	66.3	70.8	84.5	83.9	84.0	77.3	66.6	50.0	47.8	63.7	41.3	62.3	84.1	64.6	1996
1997	41.7	50.6	56.2	63.1	72.2	82.0	89.3	85.8	78.8	68.3	52.1	47.3	65.6	46.7	63.8	85.7	66.4	1997
1998	49.4	50.3	55.4	67.3	77.2	81.8	88.2	87.2	83.7	67.3	58.4	50.8	68.1	49.0	66.6	85.7	69.8	1998
1999	44.6	47.3	51.5	64.3	76.5	81.9	91.4	85.7	77.0	65.5	60.1	48.5	66.2	47.6	64.1	86.3	67.5	1999
2000	41.4	48.4	60.0	62.9	75.6	82.2	81.8	82.0	75.2	69.6	55.0	38.1	64.4	46.1	66.2	82.0	66.6	2000
2001	41.3	48.2	51.3	67.2	75.2	84.4	83.3	87.0	76.0	69.2	63.4	51.7	66.5	42.5	64.6	84.9	69.5	2001
2002	48.6	51.1	55.7	68.1	73.8	85.0	89.3	88.9	80.3	63.9	53.8	42.6	66.8	50.5	65.9	87.7	66.0	2002
2003	35.3	37.5	54.6	63.5	67.1	78.6	84.5	84.7	76.6	65.8	60.6	45.5	62.9	38.5	61.7	82.6	67.7	2003
2004	34.8	44.3	55.6	64.9	79.6	80.7	84.9	83.0	78.8	64.5	58.2	46.8	64.7	41.5	66.7	82.9	67.2	2004
2005	41.5	46.0	49.4	66.7	70.2	83.6	86.9	86.3	83.5	66.4	59.6	42.3	65.2	44.8	62.1	85.6	69.8	2005
2006	51.2	45.7	56.8	69.1	75.0	83.7	90.2	88.7	74.2	65.4	58.6	52.5	67.6	46.4	67.0	87.5	66.1	2006
2007	47.4	36.8	56.5	61.3	78.1	84.3	87.5	87.6	82.6	74.9	55.6	45.0	66.5	45.6	65.3	86.5	71.0	2007
2008	44.5	47.1	55.5	65.8	72.0	86.6	87.7	84.5	78.9	66.5	53.5	47.2	65.8	45.5	64.4	86.3	66.3	2008
2009	37.1	48.4	52.7	65.9	73.4	80.6	85.3	85.8	75.3	64.4	58.4	42.5	64.1	44.2	64.0	83.9	66.0	2009
2010	40.9	37.7	58.2	69.7	77.3	89.5	92.5	86.8	82.4	68.4	57.5	39.9	66.7	40.4	68.4	89.6	69.4	2010
2011	37.8	49.1	53.7	68.1	77.4	86.5	92.9	85.8	77.3	66.3	62.0	52.4	67.4	42.3	66.4	88.4	68.5	2011
2012	47.9	51.1	64.2	67.2	79.2	85.3	91.7	87.0	79.5	67.3	52.5	50.7	68.6	50.5	70.2	88.0	66.4	2012
2013	45.2	42.4	48.9	66.2	73.6	83.2	87.6	83.6	79.2	68.6	53.1	47.5	64.9	46.1	62.9	84.8	67.0	2013
2014	37.0	41.7	48.8	64.1	75.6	83.0	85.7	82.5	78.3	67.7	52.9	47.4	63.7	42.1	62.8	83.7	66.3	2014
2015	38.8	35.1	50.3	66.1	80.6	82.9	86.5	86.0	82.3	66.3	60.9	58.3	66.2	40.4	65.7	85.1	69.8	2015
2016	41.6	46.0	61.2	65.8	70.1	83.8	89.6	89.1	81.7	70.2	60.6	46.7	67.2	48.6	65.7	87.5	70.8	2016
2017	46.1	56.1	53.8	70.5	72.2	85.2	88.5	82.9	79.1	72.6	56.8	44.4	67.4	49.6	65.5	85.5	69.5	2017
2018	42.1	51.2	49.2	62.8	79.5	82.5	87.7	87.7	80.0	68.3	51.3	48.1	65.9	45.9	63.8	86.0	66.5	2018
2019	41.6	46.4	53.3	70.6	78.1	85.9	91.7	88.4	85.5	72.0	54.3	48.4	68.0	45.4	67.3	88.7	70.6	2019
2020	48.7	51.3	61.1	63.1	71.7	85.4	92.7	87.4	78.3	69.4	63.7	48.5	68.4	49.5	65.3	88.5	70.5	2020
2021	44.6	42.7	59.8	67.9	76.7	86.4	91.0	88.8	81.9	74.2	56.6	54.7	68.8	45.3	68.1	88.7	70.9	2021
2022	40.9	52.2	59.1	65.6	76.6	84.9	90.2	89.4	80.8	66.4	60.4	48.0	67.9	49.3	67.1	88.2	69.2	2022
2023	52.4	55.3	57.2	72.0	74.9	83.7	90.3	86.9	81.4	72.6	58.6	52.2	69.8	51.9	68.0	87.0	70.9	2023
2024	45.8	51.6	59.4	68.0	75.5	89.2	92.4	87.1	78.4	69.5	61.2	47.1	68.8	49.9	67.6	89.6	69.7	2024
2025	38.4	46.3	62.4	68.7	75.7	85.7	89.5	82.1	79.5	68.0	57.1	42.9	66.4	43.9	68.9	85.8	68.2	2025
2026	39.1	41.6	61.5	70.7	74.5	85.7	88.7	86.4	80.3					41.2	68.9	86.9		2026
YEAR	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	ANNUAL	WINTER (Dec-Feb)	SPRING (Mar-May)	SUMMER (Jun-Aug)	AUTUMN (Sep-Nov)	YEAR
AVERAGE Max. Temperature 1872-2025	41.9	44.1	52.9	64.0	74.1	82.8	87.1	84.7	78.3	67.3	55.5	45.2	64.8	43.8	63.6	84.8	67.0	AVERAGE Max. Temperature 1872-2025
AVERAGE Max. Temperature 1951-2025	41.9	45.3	54.1	65.5	74.6	83.6	87.9	85.7	79.0	67.9	56.6	46.2	65.7	44.4	64.8	85.7	67.8	AVERAGE Max. Temperature 1951-2025
30-Year AVERAGE Max. Temperature 1991-2020	42.7	45.9	54.3	66.0	75.0	83.9	88.3	86.0	79.2	67.9	56.8	47.0	66.1	45.2	65.1	86.1	68.0	30-Year AVERAGE Max. Temperature 1991-2020
NWS 30-Year NORMAL Max. Temperature 1991-2020	43.2	46.4	54.8	66.5	75.5	84.4	88.8	86.5	79.7	68.3	57.3	47.5	66.6	45.7	65.6	86.6	68.4	NWS 30-Year NORMAL Max. Temperature 1991-2020
AVERAGE Max. Temperature 2001-2030 Running Average	42.7	46.3	55.8	66.9	75.1	84.5	88.8	86.3	79.7	68.4	57.6	47.7	66.6	45.4	65.9	86.5	68.6	AVERAGE Max. Temperature 2001-2030 Running Average
Maximum Year	55.3 1950	56.1 2017	65.6 1945	72.0 2023	82.6 1991	89.5 2010	92.9 2011	90.4 1995	86.1 1970	74.9 2007	63.7 2020	58.3 2015	69.8 2023	52.8 1931-1932	70.2 2012, 1977	89.6 2024, 2010	73.4 1931	Maximum Year
Minimum Year	29.9 1918	32.7 1934	42.4 1960	53.7 1874	67.0 1882	74.3 1903	79.6 1891	78.8 1927, 1903	71.8 1888	59.4 1925	48.3 1880	33.0 1989	60.7 1875	36.3 1917-1918	58.4 1892	79.8 1903	62.0 1876	Minimum Year

AVERAGE MAXIMUM TEMPERATURES BY 30-YEAR-PERIODS AT BALTIMORE																		
AVERAGE 30-YEAR PERIOD	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	ANNUAL	WINTER (Dec-Feb)	SPRING (Mar-May)	SUMMER (Jun-Aug)	AUTUMN (Sep-Nov)	AVERAGE 30-YEAR PERIOD
1951-1980	41.0°	43.7°	53.0°	65.1°	74.2°	82.9°	87.1°	85.5°	79.0°	67.7°	55.8°	45.1°	65.0°	43.2°	64.1°	85.2°	67.5°	1951-1980
1961-1990	40.3°	43.7°	54.1°	64.3°	74.2°	83.0°	87.2°	85.5°	78.8°	67.5°	56.6°	45.3°	65.1°	42.9°	64.2°	85.2°	67.6°	1961-1990
1971-2000	41.5°	45.2°	54.3°	64.9°	74.3°	83.0°	87.5°	85.4°	78.5°	67.3°	56.5°	46.3°	65.4°	44.4°	64.5°	85.3°	67.4°	1971-2000
1981-2010	42.0°	45.5°	54.2°	65.2°	74.5°	83.6°	87.8°	85.6°	78.5°	67.3°	57.0°	45.8°	65.6°	44.5°	64.6°	85.6°	67.6°	1981-2010
1991-2020	42.7°	45.9°	54.3°	66.0°	75.0°	83.9°	88.3°	86.0°	79.2°	67.9°	56.8°	47.0°	66.1°	45.2°	65.1°	86.1°	68.0°	1991-2020
2001-2030 Running Average	42.7°	46.3°	55.8°	66.9°	75.1°	84.5°	88.8°	86.3°	79.7°	68.4°	57.6°	47.7°	66.6°	45.4°	65.9°	86.5°	68.6°	2001-2030 Running Average
MAXIMUM through 1991-2020	42.7°	45.9°	54.3°	66.0°	75.0°	83.9°	88.3°	86.0°	79.2°	67.9°	57.0°	47.0°	66.1°	45.2°	65.1°	86.1°	68.0°	MAXIMUM through 1991-2020
MAX. 30-YEAR PERIOD	1991-2020	1991-2020	1991-2020, 1991-2000	1991-2020	1991-2020	1991-2020	1991-2020	1991-2020	1991-2020	1991-2020	1981-2010	1991-2020	1991-2020	1991-2020	1991-2020	1991-2020	1991-2020	MAX. 30-YEAR PERIOD
MINIMUM through 1991-2020	40.3°	43.7°	53.0°	64.3°	74.2°	82.9°	87.1°	85.4°	78.5°	67.3°	55.8°	45.1°	65.0°	42.9°	64.1°	85.2°	67.4°	MINIMUM through 1991-2020
MIN. 30-YEAR PERIOD	1961-1990	1961-1990, 1951-1980	1951-1980	1961-1990	1961-1990, 1951-1980	1951-1980	1951-1980	1971-2000	1981-2010, 1971-2000	1981-2010, 1971-2000	1951-1980	1951-1980	1951-1980	1961-1990	1951-1980	1961-1990, 1951-1980	1971-2000	MIN. 30-YEAR PERIOD