

This is an Open Access document downloaded from ORCA, Cardiff University's institutional repository:<https://orca.cardiff.ac.uk/id/eprint/127594/>

This is the author's version of a work that was submitted to / accepted for publication.

Citation for final published version:

Richmond, Stephen , Zhurov, Alexei , Bin Mohd Ali, Azrul, Pirttiniemi, Pertti, Heikkinen, Tuomo, Harila, Virpi, Silinevica, Signe, Jakobsone, Gundega and Urtane, Ilga 2020. Exploring the midline soft tissue surface changes from 12 to 15 years of age in three distinct country population cohorts. *European Journal of Orthodontics* 42 (5) , pp. 517-524. 10.1093/ejo/cjz080

Publishers page: <http://dx.doi.org/10.1093/ejo/cjz080>

Please note:

Changes made as a result of publishing processes such as copy-editing, formatting and page numbers may not be reflected in this version. For the definitive version of this publication, please refer to the published source. You are advised to consult the publisher's version if you wish to cite this paper.

This version is being made available in accordance with publisher policies. See <http://orca.cf.ac.uk/policies.html> for usage policies. Copyright and moral rights for publications made available in ORCA are retained by the copyright holders.



High Reproducibility ≤ 0.5mm		Moderate Reproducibility ≤ 1.0mm	Poor Reproducibility > 1.0mm
n=20 (56%)		n=13 (36%)	n=3 (8%)
<i>gZ</i>	<i>lsZ</i>	<i>gX</i>	<i>gY</i>
<i>nX</i>	<i>liX</i>	<i>enLX</i>	<i>nY</i>
<i>nZ</i>	<i>pgZ</i>	<i>enLY</i>	<i>pgY</i>
<i>enLY</i>	<i>gnY</i>	<i>enRX</i>	
<i>enRY</i>	<i>dpcX</i>	<i>enRZ</i>	
<i>prnX</i>	<i>dpcZ</i>	<i>prnY</i>	
<i>prnZ</i>	<i>stoX</i>	<i>lsY</i>	
<i>snX</i>	<i>stoY</i>	<i>liY</i>	
<i>snY</i>	<i>stoZ</i>	<i>liZ</i>	
<i>snZ</i>		<i>pgX</i>	
<i>lsX</i>		<i>gnX</i>	
		<i>gnZ</i>	
		<i>dpcY</i>	